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ESSAYS

ON THE

TRADE, COMMERCE, MANUFACTURES, AND FISHERIES OF SCOTLAND;

CONTAINING,

REMARKS on the Situation of moſt of the SEA-PORTS; the Number of SHIPPING employed; their TONNAGE:

STRICTURES on the Principal INLAND TOWNS; the different Branches of TRADE and COMMERCE carried on; and the various IMPROVEMENTS made in each:

HINTS and OBSERVATIONS on the CONSTITUTIONAL POLICE; with many other Curious and Intereſting ARTICLES never yet Publiſhed.

By DAVID LOCH MERCHANT,
And GENERAL INSPECTOR of the FISHERIES in SCOTLAND.

IN THREE VOLUMES.

VOLUME I.

EDINBURGH:
Printed by WALTER and THOMAS RUDDIMAN,
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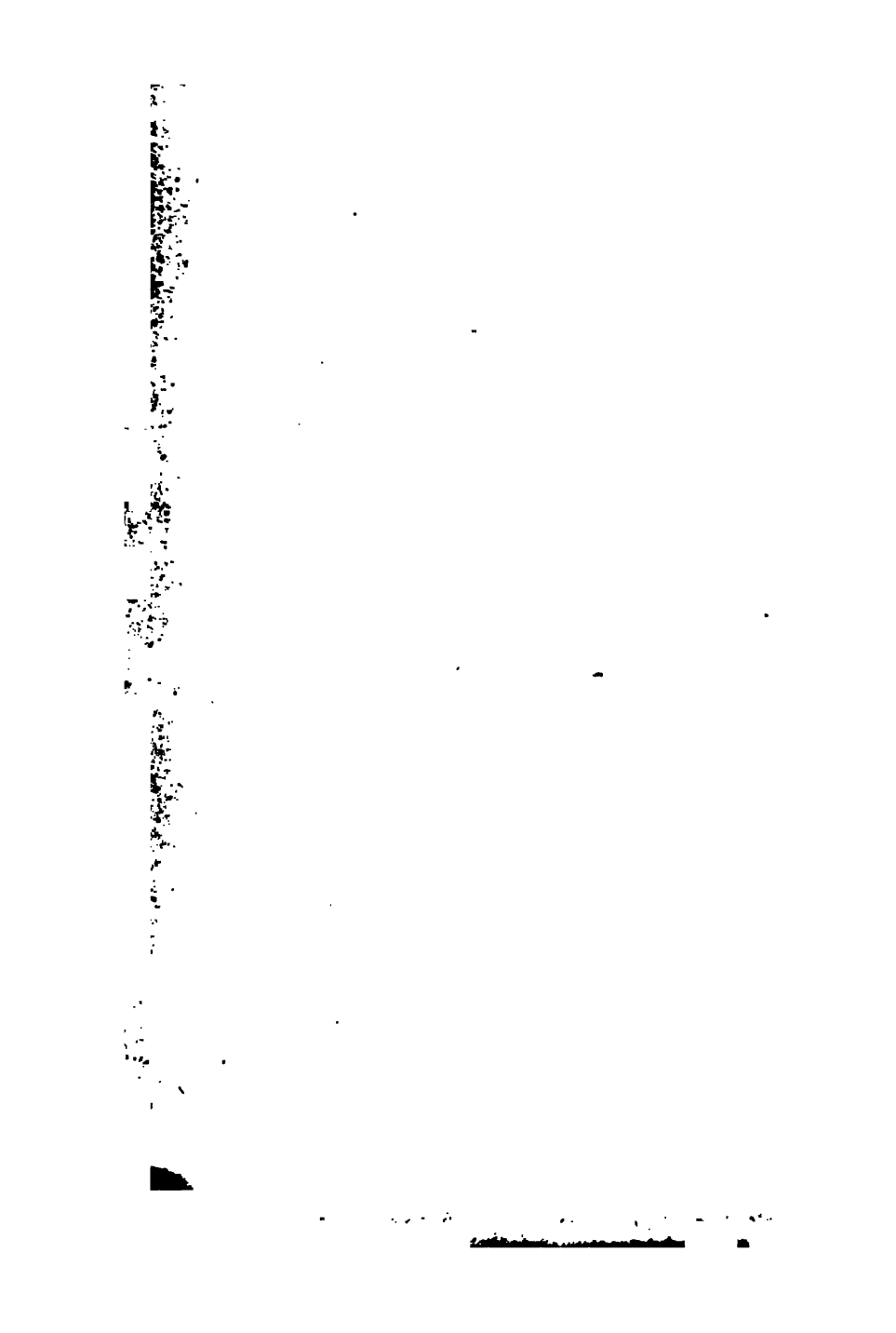

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Theſe are circumſtances, my Lord, not to mention the many noble acts of benevolence, humanity and liberality, exerciſed towards thoſe who are more immediately under your Lordſhip's influence,—that, while they add luſtre to your dignity, will redound to your immortal honour, and made me doubly anxious to commit the preſent Work to your Lordſhip's patronage,—intended to excite, cheriſh and increaſe that love for Trade and Manufactures, which your Lordſhip has been ever ſtudious to promote; and which, if proſecuted with due vigour, will raiſe this Country, languiſhing in poverty and obſcurity, to the higheſt pitch of opulence and glory.

That your Lordſhip may live long in health, to enjoy the ſweets of happineſs that are the iſſues of ſuch exalted

alted virtues, is the moſt ardent wiſh of him who has the honour to ſubſcribe himſelf, with the moſt profound veneration,

MY LORD,

Your Lordſhip's

moſt obedient,

and very humble Servant,

DAVID LOCH.

EDINBURGH,
28th Oct. 1778.

PREFACE.

THE Author of the following ſheets has frequently communicated his ſentiments to the Public, in various periodical papers, on the Trade, Manufactures, and Fiſheries of Scotland, with a view to excite a ſpirit of induſtry, emulation, and public ſpirit among the inhabitants of this country; and he is happy to find they have been, in ſome meaſure, ſucceſsful, in having rouſed them from that lethargic indolence, and diſpelled that infatuated prejudice, which have long kept this part of the united kingdom in poverty and thraldom.

Many gentlemen, who are true friends to their country, have often expreſſed their deſire to ſee the Author's ſentiments, on the above particulars, properly collected together, and arranged under their different heads, with a view of rendering them more generally ſerviceable. As his ruling paſſion is his country's weal, and as he is happy to be a mean of furthering its proſperity, he has chearfully undertaken the taſk, hoping, that the end aimed at in the publication will ſufficiently atone for his inability, as a writer,

writer, to do common juſtice to ſuch important ſubjects.

Since his laſt publication, he has made Tours through almoſt all the great manufacturing towns in Scotland, as well as to the ſtated rendezvous of Fiſhing in the Highlands and Weſtern Iſles. Theſe have afforded many facts and obſervations well worthy the attention of the Merchant, the Manufacturer, and the Mechanic. In the preſent work they are all faithfully recorded; and he hopes they are ſuch as ſhould not appear below the notice of the Nobleman, and the Gentleman of property; nor even be diſregarded by any individual who wiſhes well to his native Iſle.

The branch of manufacture chiefly contended for in the following work, is not one, for the proſecution of which we are obliged precariouſly to depend upon foreign nations for materials, neither is it found too intricate for the genius of our countrymen: but it is one, for which indulgent Heaven has bleſſed us with every thing neceſſary for its foundation; and we have only ourſelves to blame, ſhould we obſtinately refuſe to profit by the means put in our power. If we had firmneſs and reſolution to diſſolve that charm of faſcination, under which this impove-

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riſhed country has been long fettered, and unanimouſly to perſevere in the eſtabliſhment of the Woolen Manufacture, already happily begun, we ſhould ſhortly ſee Scotland raiſed from abject poverty and mean obſcurity, to the ſame degree of opulence and dignity as our ſiſter kingdom, acquired only by this invaluable branch.

As the greateſt object for increaſing our Woolen Manufacture, juſtly ſtyled the ſtaple of this Iſland, is a ſufficiency of good Wool, the Author has endeavoured firſt to enforce the propriety of increaſing the number of Sheep, and the neceſſity of procuring the beſt breed of that uſeful animal from every quarter of the globe; and in the various branches of this manufacture, he has enlarged upon ſuch as are moſt beneficial to the labouring poor, as well as to the proprietors themſelves; convinced that workmen, who are able to purchaſe, by their induſtry, the neceſſaries, and enjoy the common comforts of life, are induced to marry early,—that matrimony increaſes population, and that population is the primary ſource of a nation's wealth and ſtrength, which are to be eſtimated only by the number, virtue, and induſtry of its inhabitants.

With regard to the Linen Manufacture, it has long been favoured with the protection and

encouragement

encouragement of the public, on which account it may be deemed temerity in an individual to combat the opinion of ſo many reſpectable characters, who have long conſidered it the *ſtaple* of this country; but opinions, by whomſoever received, muſt always give place to facts. On this ground it is, that the Author entertains no doubt of convincing every impartial Reader, that Flax, being an exotic, and the ſoil and climate unfavourable to its culture, can never be raiſed here to perfection; and that to attempt to eſtabliſh the Linen Manufacture as the ſtaple of this country, is unnatural and abſurd, and ultimately promiſes no real advantage to Scotland.

As very large ſums have been, and ſtill continue to be remitted to England for London Porter, which we can brew at home as good as, and cheaper than, our neighbours; the Author has endeavoured to rouſe the attention of his countrymen to the manufacturing of this article, as an object of no ſmall conſequence. He has the happineſs to find that his efforts, in this reſpect, have been crowned with a degree of ſucceſs almoſt equal to his wiſhes; as the inhabitants in general, diveſted of the prejudice they had entertained againſt Scots malt liquors, are giving due encouragement to their own, thereby giving employment to an additional number

of

of hands, keeping the little money among us in circulation at home, and greatly increaſing the revenue of Scotland.

The manufactures eſtabliſhed in and near Paiſley and Dundee, compriſing the Thread, Lace, and Silk branches, are the next ſubjects of review, in treating of which, the Author, convinced of their very great importance in giving comfortable ſubſiſtence to ſo many thouſands of induſtrious labourers, has attempted to do juſtice to their intrinſic value, by placing them in ſuch an impartial and conſpicuous point of view, as to afford a pleaſing picture to every friend and well-wiſher to his country.

After particularizing a Tour through moſt of the trading towns and villages of Scotland, enriched with notes and obſervations concerning the nature and extent of their Trade, Manufactures, Improvements, &c.—the Fiſheries of Scotland, with a traverſe into the Weſtern Iſles, occupy the whole of the ſecond Volume. The Author has long conſidered the Fiſhing trade as an object of the utmoſt conſequence, well worthy the attention of the Legiſlature, inaſmuch as it is a great nurſery for ſailors, cauſes an exchange of their cargoes for raw materials, imported at a low value, extends the conſumpt of

our

our own commodities, and is the life of manufactures; proving, on the whole, an inexhauſtible ſource of riches to the whole nation.

The Author has next made ſome obſervations on Trade in general,—expatiated on the utility of inland navigation, particularly on the importance of the Great Canal, intended to open a communication between the Eaſt and Weſt ſeas, —and concludes with ſtrictures on the unhappy conteſt between Great Britain and the Colonies, together with a plan to reduce the Americans to obedience. He has alſo attempted to demonſtrate that the advantages of our trade with the Americans, ſaid to be principally in favour of the mother country, centered intirely among themſelves, and that they are indebted to Great Britain for every bleſſing they enjoyed prior to the commencement of their unnatural rebellion.

Having now given a brief account of the nature and deſign of the Work, the Author offers it to the public (though the reſult of thirty years experience in *Trade*), with the greateſt diffidence of his abilities as a *Writer*. He was always a volunteer when giving his deſultory thoughts in periodical papers and in detached pieces; but he has now been impreſſed into the ſervice by ſeveral of his *Friends*, who wiſh well to the *Trade* and

and *Manufactures* of Scotland. If the public in general, and *thoſe* in particular, receive the diſintereſted efforts of an individual, to further and ſecure *their proſperity*, with ſatisfaction and complacency,—and if they prove in the ſmalleſt degree uſeful to his countrymen, he ſhall meet the ſneers of the ſupercilious, and the acumen of ſnarling critics, with the calmneſs and fortitude of a philoſopher, and, arrogating to himſelf the merit of a good intention, ſeek ſhelter in this pleaſing reflection, *That his ſole aim* was *his country's good.*

St Ann's Yards,
Edinburgh, 28th *Oct.*
1778.

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ESSAYS

ESSAYS
ON THE
TRADE, MANUFACTURES,
AND
FISHERIES OF SCOTLAND.

CHAP. I.

SECT. I.

Of the Propriety of increaſing the Number of Sheep, and the Neceſſity of getting a proper Breed of that uſeful Animal introduced into this Country.

I HAVE choſen to make the breeding of Sheep the firſt chapter of the preſent work, becauſe, without a due degree of attention to this important article (however anxious the country may be to encourage their own woolen manufacture, in preference to every other), the manufacturer cannot be ſupplied with a ſufficiency of good wool, which muſt impede its pro-

greſs, and prevent its ever arriving to that height of perfection which we might inſure to ourſelves, if we were to increaſe the *quantity* and *quality* of *wool*, the natural produce of our own country.

To accompliſh this is by no means a difficult, and far leſs a hazardous taſk.—I have been told there may be at preſent three millions of Sheep in Scotland, and that their number might be at leaſt increaſed to ten millions, without encroaching upon a ſingle acre of corn-land.

Before the union, we not only cloathed ourſelves, but ſent cloth and woolen goods abroad, to a conſiderable amount: Nay I find, beſides, that large ſums came annually into the country for unmanufactured wool; from which it is evident, that the number of Sheep in Scotland before that period muſt have been greatly ſuperiour to what we have at preſent. As a corroboration of the fact, I muſt beg leave to mention one inſtance, which I have from undoubted authority; and that is, that forty years ago there were in Eaſt and Mid-Lothians, twenty Sheep for one that are in theſe counties at preſent.

That theſe are facts, no one, I preſume, who is acquainted with the hiſtory of Scotland, will attempt

attempt to controvert. It may not, therefore, be deemed altogether improper, in the preſent undertaking, to inquire into, and endeavour to account for, the cauſes of this amazing decreaſe of our Sheep, ſo particularly deſtructive to the riches and proſperity of this part of the united kingdom.

It is well known, that, however the Engliſh may now affect to deſpiſe the Scots, they courted an union with unremitting ardour, for a ſeries of years; and that this union, effected by underhand dealing, was made rather to anſwer ſiniſter views than to be productive of any advantage to Scotland, is the opinion of the bulk of the nation; as well as that they thought themſelves ſold by a few of their leading men. Whether, notwithſtanding, this union has been advantageous to both countries, is a queſtion that has often been agitated, but which does not, from the nature of my deſign, ſeem neceſſary for me to inquire into: perhaps, if my opinion were aſked, I ſhould anſwer in the affirmative. Certain it is, that the noblemen who managed this momentous affair on the part of Scotland, poſſeſſed great landed property; and that they received very large ſums of money in order to accompliſh this moſt deſirable event. The Woolen Manufacture had long been conſidered as the

ſtaple of England,—as an inexhauſtible fund of riches. It may therefore be at leaſt preſumed, that theſe noblemen, who had experienced the irreſiſtible power of Engliſh gold, might, in an ignominious manner, be applied to for preventing Scotland from interfering with England in its favourite manufacture. Many other branches of trade might, with great appearance of utility, have been pointed out to the inhabitants of this country, and, among the reſt, that of the *Linen Manufacture*, in which the Engliſh would never attempt to be their rivals. If, therefore, ſuch a thing was agitated, which I offer merely as conjectural, the moſt effectual way of ſecuring ſucceſs was, to diſcourage the breed of Sheep in Scotland; becauſe it is impoſſible to proſecute any manufacture without the neceſſary materials. Whether the decreaſe of Sheep is owing to this cauſe or not, I will not take upon me abſolutely to determine; but this I know, that their number has gradually leſſened ſince that period, to the great prejudice of the internal proſperity of Scotland. This much I thought neceſſary to offer, in order to pave the way for recommending an increaſe of the number, and an amendment of the breed of our Sheep, greatly neglected ſince the union, but which, if properly attended to, will be more advantageous to the induſtrious people of Scotland than all the

the gold mines of Mexico and Peru are to the lazy inhabitants of haughty Spain.

In the firſt place, it will be acknowledged, that AGRICULTURE is the ſource of every nation's ſtrength and wealth, and the mother of all arts and ſciences. Many authors who have, within theſe twenty years, judiciouſly treated this ſubject, as well as trade and manufactures, have done infinite ſervice to this part of the united kingdom. They have laid a foundation for many improvements, which do already, and will continue hereafter to redound to the nation's benefit, as much as their writings do *now* to their honour and credit.

The ſtrength and wealth of a nation conſiſts in the number and induſtry of its inhabitants: And many patriotic noblemen in this country, actuated by the beſt of principles, have encouraged men to come and ſettle in places that wanted cultivation, or that ſeemed adapted by nature for the ſeat of manufactures. It is a well known truth, that in all countries thinly inhabited the people are indolent and poor: The cauſes are obvious; for the natural ſoil, almoſt without culture, ſupplies their immediate wants; and were they to labour it, they would not find a market for their produce: whereas,

in all populous countries the inhabitants muſt work or ſtarve; for every individual muſt be fed, and the ground is the moſt natural, and the only magazine that can ſupply them. Hence people of both ſexes and of every age are employed; life and health preſerved; riches acquired; each different ſpecies of animals and vegetables increaſed; trade promoted; and government ſupplied with men and money for the nation's defence. In ſhort, it is under this latter circumſtance only that people enjoy life, liberty and property, and that arts and ſciences flouriſh and are brought to perfection.—But to return from this digreſſion——

Scotland, being in many places mountainous, is, perhaps, for that very reaſon, one of the beſt countries in the world for raiſing Sheep. Theſe uſeful animals like a dry paſture, and will endure much cold, provided they be kept from wet: nay, the colder the climate is in which they are brought up, the finer will their wool be. This may be demonſtrated by an experiment attended but with little trouble to the curious farmer, who may be deſirous of accounting for the different degrees of fineneſs of the threads or filaments of a fleece of wool. Theſe threads are conſtantly varied according to the heat of the ſeaſon, or the different temperature of

of the air, at the time of its growth. For it is a certain fact, that that part of a fleece which grows in the coldeſt ſeaſon, or in winter, is infinitely finer than that which grows in the ſummer; and that theſe threads or filaments on any fleece are exactly proportional to the different degrees of the temperature of the air, or the variations of heat and cold in the diſtrict in which the Sheep are reared.—Numberleſs other inſtances might be given in ſupport of my argument, but I ſhall only adduce the few following.

That large tract of country called Thibet, ſituated betwixt India and China, is moſtly 8000 feet above the level of the ſea, and conſequently, notwithſtanding its ſouthern climate, muſt be very cold; yet the Sheep delight to feed there, and produce exceeding fine wool.

The mountains of the Andes and Peru, belonging to Spain, which lie in South America, are ſtill higher, being about 15,000 feet above the ſurface of the ſea. The cold is ſo exceedingly intenſe on the *ſummits* of theſe mountains, that neither man nor beaſt can breathe upon them; yet the Sheep, fed on the lower parts of theſe mountains, produce wool of a finer quality than the former.—Inſtinct, which prompts them to *aſcend* as high as they find food

food and climate fit for them, as naturally induces them to *deſcend* as winter approaches. In theſe high mountainous countries, the Sheep may always enjoy the ſame temperature of air; for, as the ſeaſon alters, the place of abode can alſo be altered. I ſuppoſe 8000 feet above the level of the ſea is cold enough to live in when the ſun is vertical, or right over our heads, without ſhade; and that, by deſcending 4000 feet during the winter months, the ſame climate, or more properly the ſame degree of heat and cold, may be always enjoyed. Thus it is, that the Sheep are conſtantly kept in a cool region all the year round, and at the ſame time are plentifully ſupplied with good dry wholeſome food.

I needed not to have carried you farther than Spain for examples in ſupport of the truth of my argument, nor ſhould I have omitted in this place to particularize one inſtance, were it not that I intend to borrow a good deal concerning the method practiſed in that country of paſturing their Sheep, from authors who have profeſſedly written on the ſubject: but as this will orderly fall to be taken in when treating of the manner after which Sheep ſhould be managed in general, I ſhall defer it till it comes in courſe. Before I quit this ſubject, however,

I ſhall

I ſhall beg leave to mention, that Zetland, the coldeſt climate in our country, produces Sheep with the beſt wool, not inferiour to that of Spain, from which I have often had ſtockings manufactured much finer than any of the kind I ever ſaw, which were beautiful beyond deſcription. There is no country I have had occaſion to be in, that promiſes better than our weſtern Highlands for rearing and feeding Sheep, that may produce good wool. Theſe numerous hills afford excellent Sheep-paſture; and, from their vicinity to the great weſtern ocean, the ſnow does not lie upon them, in the ſevereſt winter, for more than two or three days together. Theſe ſuperior advantages, which kind nature has beſtowed on this part of the country, have induced many of the judicious inhabitants to improve the breed, and augment the number of their Sheep.

It is with no leſs ſatisfaction I am able to declare, that a ſimilar plan was ſome time ago ſet on foot, and has been attended with the wiſhed-for ſucceſs, by ſeveral noblemen and gentlemen of this part of the country:—Such laudable examples of real patriotiſm, begun by ſo many reſpectable characters, both for birth and learning, will, I hope, be followed by every gentleman and farmer in the kingdom, who has the proſperity

ſperity of his country at heart. Theſe truly patriotic leaders merit the higheſt encomiums for the trouble and expence they have incurred in procuring proper rams from England, in order to improve the breed of Sheep, as beſt ſuited the nature of the paſture. This was ſtriking at the root of the diſeaſe, and laying a laſting foundation for the eſtabliſhment and improvement of the *Woolen Manufacture*. By ſtationing theſe rams in different parts of the country, and allowing every gentleman and farmer to ſend their ewes to be ſerved by them, they have ſhewn the world that their principal object is the good of their country; and that they theirſelves are convinced, that nothing can tend ſo much to the glory and welfare of Scotland, as a due attention to this important branch of trade, the firſt inlet to which is a proper breed of Sheep, from which plenty of good wool might be had, and to the accompliſhment whereof no other method could be more effectual. It is ſome time ſince I propoſed, and ſtrongly recommended, ſuch a plan; it may therefore be naturally ſuppoſed, that I feel no ſmall degree of happineſs, in finding my ſentiments coincide with, and ſupported by noblemen and gentlemen, not leſs diſtinguiſhed by a love of their country, and every mental excellency, than by their exalted birth; in which laſt they

they are inferiour to none in the three kingdoms. When this wiſe and ſalutary plan of improving the breed of Sheep ſhall be adopted through every part of Scotland, as I have reaſon to hope it ſoon will be, I am conſcious the moſt ſalutary effects will reſult from it, as well to the breeder of Sheep in particular, as to the country in general.

Every body will allow that the Sheep is a moſt excellent animal, his fleſh ſupplying us with good and wholeſome food, and his ſkin with uſeful and ornamental cloathing; and, notwithſtanding the ſerviceableneſs of this animal, he might ſtill be more beneficial to us, were people in general to make choice of a proper breed, and manage their *wool* with more judgment. Some perſons falſely imagine, the *coarſer* the wool is, the more *hardy* the Sheep; which erroneous notion has induced many to keep tups covered with *hair* inſtead of *wool*; and ſome of theſe neither a good black nor a good white, but a mixture of both. Now altho' the wool in this ſtate is reduced in its value at leaſt one half; yet, not ſatisfied with this degeneracy, they ſmear it abundantly with tar, which, beſides decreaſing its worth to the great detriment of the farmer, renders it almoſt uſeleſs to the manufacturer. It ſhould, however, be obſerved, that

the quality of wool which is analogous to the temperature of the air at the time of its growth, but more particularly to the coldneſs of the climate (being finer as it is more intenſe), has alſo ſome dependence on the quality of the paſture; for hairy Sheep, tranſported to a rich paſturage, will cauſe the wool to grow much finer, and *contrariwiſe*: In ſhort, that paſture which improves the quality of the wool is certainly beſt adapted to the welfare of the Sheep; as that country which is the coldeſt produces the fineſt wool.

Notwithſtanding what has been advanced by a correſpondent, that he had tried the large fine wooled Sheep, and that they did not anſwer in the muir-lands, on account of their being naked when lambed, and, therefore, could endure no ſtormy weather for ſome time after, I am thoroughly convinced, that a well-wooled tup and ewe never fail to produce lambs properly cloathed to protect them from the weather, wherever dropt. The great Author of nature has provided a covering ſuitable to all the brute creation, according to the climate they inhabit. Even our domeſtic animal the dog, as much as he is with us at the fire-ſide, takes on a much thicker and warmer coat in the winter than he does in the ſummer; and the colder and more

ſevere

ſevere the winter is, the thicker will be his cover. It is likewiſe to be obſerved, that the ſkins of hares, rabbits, and all the ſpecies of *furred* animals, are more valuable by 50 *per cent.* in winter than they are in ſummer. My worthy correſpondent may therefore aſſure himſelf, that nothing more is neceſſary to produce good wool, and in abundance, from a good breed of fine-wooled ſheep, than to provide them with plenty of proper, wholeſome food *, and a convenient ſhelter in ſtormy weather.—But farther; the fine-wooled Sheep never caſt their wool unleſs they be ſtarved for want of food, carried to a hot climate, or when they are very old; and it is not only my opinion, but that of the moſt intelligent farmers, that it is hardly poſſible to get too fine a breed for muir-farms. Extremes in any thing ſeldom anſwer; but this is erring, if erring at all, on the right ſide. A tolerably fine-wooled Sheep will thrive on the ſame paſture, equal with a coarſe-wooled one,

* *The beſt winter food for ſheep is turnips; next to theſe fitches, which improve them very much.—Hay ſhould always be given them when the ground is covered with ſnow, and even when it is going off. But turnips may not only be given to them all winter*, but even in the ſpring.

and will carry as much wool; with this additional advantage, that a fleece of the former is worth at leaſt twice as much as the latter, which alone is certainly a ſufficient inducement for Sheep-farmers, upon high lands, to procure a proper breed.

There are many gentlemen in the Mearns, and the adjacent counties, who have a good breed of fine-wooled Sheep; among whom I ſhall take the liberty of mentioning Sir Alexander Ramſay, Bart. Robert Barclay of Urie, Eſq; David Scott of Benholm, Eſq; and many others: And at Kirriemuir, and over all that part of the country, hardy good-wooled Sheep may be had: but depend upon it, if they are not well fed they will ſhed their wool, as all Sheep muſt in this ſituation; and thoſe which are worſt cloathed will be ſooneſt gone. The better the wool, and the larger the quantity, the hardier and ſtronger the Sheep are to withſtand wet and cold; and believe me it is nothing but ſcarcity of food that cauſes the rot, and almoſt all the diſorders commonly found among theſe uſeful animals.

A late author, and ſurveyor of Tweeddale, who moſt ridiculouſly as well as abſurdly contends, that the bettering the breed of Sheep would be a great

a great loſs to the country (a doctrine repugnant to common ſenſe, and inimical to the welfare of Scotland), miſconſtrued the meaning of what I ſaid with regard to the Sheep in Tweeddale. I never recommended *large* Sheep; nor Sheep from a warm climate. I adviſed the ſtore-farmers to get Sheep that bore better wool than the majority in that county do at preſent; and ſuch I informed them might be had from Lammer-muir, which, this author ſays, is much colder than the hills in Tweeddale, by the *frigid blaſts*, and *froſt rinds*: but certain I am, the wool of the Sheep at Lammer-muir is much better than uſual; the farmers are improving it by tarring leſs, and feeding better by not overſtocking their farms. The bruiked-faced Sheep, ſo much raiſed in Tweeddale, bear the worſt wool of any Sheep in Britain; neither are they hardier than the white-wooled, ſhort-legged Sheep, which are now raiſed in the higheſt and coldeſt grounds in Scotland.

The advantages that will reſult to poſterity by improving the breed of Sheep, will hereafter be more particularly pointed out when I come to treat of the Woolen Manufacture; and thoſe that will immediately accrue to the breeders will appear from the following facts, collected

to illuſtrate and ſupport my preſent arguments.

A noble Lord, a ſmall diſtance from Edinburgh, has a breed of Sheep, partly from Spain, and partly from Dorſetſhire, and other counties in England, which thrive and feed fat on his pooreſt paſture, none of which have died of the rot, nor any other diſtemper, theſe four years paſt. This favourable circumſtance may juſtly be attributed to the Sheep not being tarred, of which practice his Lordſhip highly diſapproves. It is alſo attended with another advantage; that while his neighbours' wool brings only three ſhillings and ſixpence *per ſtone*, his Lordſhip ſells his at twenty ſhillings. Each Sheep, on an average, is ſuppoſed to yield eight pounds of tallow, and to weigh ſixteen pounds *per* quarter, of the fineſt mutton; being infinitely better than that where the Sheep have been tarred.—By a ſimple operation, and at a ſmall expence, theſe Sheep manure the very land they feed upon, which is thus effected. His Lordſhip makes a temporary fold of ſtrong netting, of about 30 yards ſquare, fixed to the ground with poles, within which they lie during the night; and when that ſpace is properly manured by their dung, &c. the fold is removed to another ſpot. Thus five ſcore of Sheep will

convert

convert into good corn land eight or ten acres *annually*; and ſixty acres of this coarſe ground will do much towards feeding theſe fine-wooled Sheep, by laying it down in the following manner; that is, twenty acres in turnips, twenty in oats, ten in fitches, and ten with rye and ſmall yellow clover.—Theſe Sheep drop their lambs (which are often twins) in *January*; and the ſame ewes frequently drop twins again in *September*; the *firſt* of which, in January following, being then a year old, bring about fifteen ſhillings, and the *laſt* (dropt in September), about half that ſum. Surely ground cannot be more advantageouſly employed to the proprietor than in this manner; and the plan is likewiſe ſo plain and ſimple, that, I preſume, it will ſoon be generally adopted by all the gentlemen and farmers in this country.

The following remarkable ſtory corroborates what is above-mentioned, the authenticity of which, as it cannot be doubted (being at liberty to mention the gentleman's name), ſo I could not omit taking notice of it, though to ſome it may appear incredible.—Mr Chalmers, in the neighbourhood of Leith, who had occaſion to deal in feeding Sheep on the iſland of Inchkeith, bought his ſtock moſtly from Galla water, which he found to anſwer very well, and generally ſold his lambs for between five and eight ſhillings.

One of theſe lambs, however, being diſordered, the Butcher would not give more for it than one ſhilling and four-pence. This was ſo very trifling a ſum, that Mr Chalmers rejected the offer, and reſolved to give the poor animal a chance for life, by allowing it to feed in a park with his cow. The Sheep, after remaining in this paſture only fifteen months, grew ſo very fat, that he was under the neceſſity of ſlaughtering it, when, to his great ſurpriſe, the beaſt was found to contain 24 lib. of tallow: each quarter of mutton weighed 23 lib. of the fineſt that could be eaten. The wool, likewiſe, was of ſo good a quality, that the ſkin brought no leſs a ſum than ſeven ſhillings and ſix-pence. The perſon who ſold it informed Mr Chalmers, that had his wife been in health, ſo as to have permitted her to make uſe of the wool in her own family, he would moſt chearfully have given half a guinea for it.—Can any crop of grain equal this in point of profit?—I believe not. The wool of this Sheep might, beſides, have made cloth to the value of five pounds ſterling, and employed and maintained an induſtrious family many weeks in manufacturing it.

The laſt inſtance I ſhall quote of the advantage accruing to thoſe who improve their breed of Sheep, is from a judicious Farmer of great experience

experience on the borders.—This gentleman, who, ſomething more than twenty years ago, began to improve his breed of Sheep, by getting tups from Lincolnſhire, uſed to ſell his wool for ten ſhillings per ſtone, containing 24lib. *Engliſh*, and at that time it took ſeven or eight fleeces to make a ſtone; whereas, but lately it took only five fleeces. Since that period he has continued to procure Engliſh tups; and his ewes, which twenty years ago were ſold at ten ſhillings a-head to graziers to feed fat, now give ſixteen and eighteen ſhillings, and weigh from 16 to 20lib. per quarter. Four fleeces on an average now weigh a ſtone, which he ſells from thirteen ſhillings, to fourteen ſhillings and ſix-pence.—I am farther informed by this gentleman, that thoſe who buy his ewes give them graſs in ſummer; that they take, at a medium, three ſhillings and ſixpence worth of wool from each, feed them with turnips in winter, and ſell them at Candlemas for twenty-ſeven, and twenty-eight ſhillings each; at which time, though only about two years old, they weigh from 20 to 24lb. per quarter.

With reſpect to proper tups for improving the breed of Sheep, Mr Bakewell and Mr Chaplin have long been famous in this way; and I am authorized to ſay, that Meſſrs Culley's

Culley's * of Fenton, near Wooler in Northumberland, gentlemen of known abilities, and long experience in farming, and who have the fineſt breed of Sheep and Black Cattle in this country, have a kind of tups inferiour to none; eſpecially if we are allowed to draw our opinion from the large annual demand they have for them from every part of Scotland. It perhaps may be doubted by ſome of my readers, though it is a ſtubborn fact, that a certain Nobleman in Scotland, well known, paid Mr Bakewell thirty guineas for the uſe of a tup one year, beſides the neceſſary charges that attended his conveyance hither and back to Leiceſterſhire, which was very conſiderable.—Meſſrs Culley's, who let their beſt tups at twelve guineas, have ſome very proper for improving our breed ſo low as five guineas for the ſeaſon. Mr Chaplin's of Lincolnſhire, and Meſſrs Culley's are better, in my opinion, than Bakewell's, being a ſtronger, ſhort-legged, round-bodied Sheep, and ſuch as

* *Theſe gentlemen, well known in this country, ſome little time ago made a tour through Scotland, to inſpect into the preſent ſtate of Agriculture. As I am informed they are about to publiſh their remarks, the public may expect ſomething intereſting on the ſubject.*

as carry large fleeces of good uſeful wool; not indeed the fineſt ſort, but fit to be uſed in moſt branches of the Woolen Manufacture.

It is the opinion of a perſon of long experience, who has one of the moſt extenſive Sheep eſtates in Scotland, that the addition of only one ſhilling to the value of each Sheep, would increaſe the produce of land one hundred thouſand pounds *ſterling* a-year. If this be admitted, it is certainly a matter of no ſmall importance to themſelves, and their poſterity, to try to mend the breed of their Sheep, in order to produce the above advantage, which would create real rent-rolls on their flocks, inſtead of imaginary ones on their tenants.

Certain it is, that an animal which ſupplies us with food and clothing is much more profitable than one which ſupplies us with food only. The Highlanders begin to be very ſenſible of this, and are therefore converting their grazing ground from feeding Black Cattle, into that for feeding Sheep. They are alſo endeavouring to mend their breed, by adopting the example of the nobility and gentry; who, to effect this, have ſpared no expence to import tups of the beſt kind from the above-mentioned gentlemen, by which means they have now Sheep, which,

inſtead

inſtead of producing only 2 or 3 lb. of coarſe wool, yield 8 or 10 lib. of fine wool; and in lieu of mutton of 6 and 7 lib. a quarter, now 16 and 18 lib.; and yet theſe very Sheep do not require a fifth part more food to ſupport them than the hungry, half-ſtarved breed of this country. It is to *wool* that England owes its induſtry, wealth, greatneſs, and independence; and if the landed gentlemen of this country were univerſally to adopt the above meaſures, and improve the breed of their Sheep, it is not to be doubted but in due time Scotland would arrive at the ſame meridian of opulence and glory.

Before I conclude this ſection, which perhaps is already ſwelled to too great a length, I muſt beg leave to anſwer a few objections that have been ſtarted againſt increaſing the number of Sheep in this country.—Some people imagine, if the number of Sheep were increaſed, it would be a mean of lowering the price of mutton, and, conſequently, of leſſening the value of land. This opinion, however, is very ill-grounded; for the wool alone, excluſive of the mutton, will ſufficiently enable the tenants to pay their rents; and therefore, if mutton were reduced to half its preſent price, the tenant would be no ſufferer, and the manufacturer and country in general would be greatly benefited. It is well

known,

known, that the cheaper we can ſend our goods to a foreign market, the more certain and readier will be the ſale. It is equally manifeſt, that the price of labour muſt be proportional to the dearneſs of proviſions. If, therefore, the one can be reduced, the other naturally falls, as a conſequence, under the ſame predicament; ſo that while the landed gentlemen are in no danger of loſing by an increaſe of Sheep, every individual muſt receive great advantage from ſuch a wiſe procedure.—But, on the other hand, ſuppoſing ſo many Sheep to be fed as to overſtock our own market, no bad conſequences would ariſe from it, as the overplus might be ſalted and ſent to foreign markets, where (according to theſe gentlemen's falſe hypotheſis, mutton being at a low rate at home) the cheapneſs of it would be ſure to meet with a ready ſale.—The moſt northern ſettlement in Europe, *Iceland*, ſubject to the King of Denmark, follows this practice. I have myſelf purchaſed ſalt mutton at Copenhagen, brought from that place, the fatteſt I ever ſaw, and which proved excellent of its kind. Let us not, therefore, be deterred from increaſing the number of our Sheep, from the apprehenſion of its decreaſing the value of land, or of being prejudicial to the tenant by overſtocking our markets. The former can never happen; and if the latter ſhould, a new branch of trade may be opened and eſtabliſhed, that would

give employment to an additional number of hands, and prove a fund of wealth to this country in general.

It may likewiſe be an objection, to increaſing the number of our Sheep, that, by ſo doing we ſhall diminiſh the number of acres at preſent occupied in corn-land.—To this I anſwer, that millions of additional Sheep may be raiſed, without incroaching upon a ſingle acre of land, capable of bearing corn, or rearing black cattle. Sheep are paſtured to advantage where neither the one nor the other will thrive; nor can any method in Agriculture be purſued more capable of meliorating land, ſo as to produce corn, than by previouſly paſturing it with Sheep, whoſe dung is known to be a rich manure. Some ſpeculative gentlemen, indeed, have fruitleſsly endeavoured to raiſe corn upon grounds where it is next to an impoſſibility of ever ripening. Had they, in lieu of this, ſtocked them with fine-wooled Sheep, their returns would have been greater beyond compariſon. Thus, while they might have benefited themſelves to a degree of certainty, they would have contributed their ſhare to the general good of the kingdom, by increaſing the quantity of wool, which I always thought, and ſhall endeavour hereafter to demonſtrate, ought to be the ſtaple manufacture of this kingdom.

CHAP.

CHAP. I.

SECT. II.

On the pernicious Cuſtom of tarring Sheep.

THE ſubject of this ſection is of the greateſt importance to the breeders of Sheep, and to the manufacturers of this country, namely, the proper growth, increaſe and management of wool. In vain may we expect to derive particular advantage from an increaſe of our Sheep, and the introduction of a proper breed, unleſs we pay equal attention to the culture of the wool. I ſhould be happy to find my countrymen deſiſt from that pernicious practice of daubing the Sheep with tar, as nothing tends ſo effectually to deſtroy the wool; and from which cuſtom I hope to diſſuade them by the moſt irrefragable arguments deduced from nature and experience.

In the firſt place, Nature, that juſt and friendly monitor, that ſure and unerring guide, ſtrongly forbids this barbarous cuſtom. Has the Almighty Creator and Governor of the univerſe formed any living creature without beſtowing upon it ſuch a covering as is beſt ſuited to its

exiſtence? And ſhall we, finite creatures, pretend to amend his ſyſtem? Depend upon it, whenever we make the attempt, we ſhall find ourſelves egregiouſly miſtaken.—The horſe, the cow, and every beaſt of the field, even thoſe which are merely domeſtic, the dog and cat, are they not furniſhed by that God of wiſdom whoſe providence ruleth over all his works, with a warmer covering during the winter than the ſummer months? And ſhall weak preſumptuous man call in queſtion that providence, by adding to the covering of the Sheep what nature never intended, and reaſon forbids to be added? —To check our arrogance and preſumption, let us turn our view to the moſt rigid northern climes, where we (born and foſtered in this friendly region) could not exiſt; and ſee if the wild beaſts be ſupplied with any artificial covering. None will dare to ſay they are: None will preſume to think they require any. And when we further reflect, that the fineſt furs and beavers come from the coldeſt climates, which covering is of a cloſer texture than that of animals inhabiting a more ſouthern clime, and, conſequently, proportionably warmer,—we can no longer doubt, by the ſame analogy of reaſoning, that Sheep in cold countries produce wool finer than thoſe in warmer; and that the God of nature has provided every animal with a coat

adapted

adapted to his preſervation, in whatever part of the globe providence may have allotted him. Let us then no longer obſtinately perſiſt in the practice of that from which we are ſtrictly enjoined, not only by our own intereſt, but alſo by the dictates of nature, reaſon, and humanity.

In diſcuſſing this matter I have hitherto deduced my arguments from nature, which I could eaſily have enlarged were I not aſſured, that common ſenſe will allow theſe ſufficient to overturn the idea of Sheep wanting any additional cloathing to that given them by nature. I ſhall now proceed, in the ſecond place, to verify my aſſertion, from the touchſtone of experience, that the *tarring* of Sheep is attended with pernicious conſequences both to the wool and to the animals themſelves.

Now if we enquire into the origin of the cuſtom of tarring Sheep, and the reaſons aſſigned for it, we ſhall be informed by the ſticklers for the practice, that "It is to make the wool "thrive; to beat off the rain, and to keep the "Sheep warm during winter; or, to deſtroy the "vermin, and cure the ſcab."——Notwithſtanding the long prevalence of theſe deluſive notions, I ſhall endeavour to prove the futility of them all.——And firſt, We are to inquire of

what nature or quality wool is, which being allowed to be *unctuous*, the ſubſtance that will agree beſt with it muſt partake of that quality; and by the ſame parity of reaſoning, what ſuits beſt with the wool muſt alſo be beſt adapted to the welfare of the Sheep: Now, if it be true that wool thrives beſt in moiſture, and that every other ſort of moiſture grows dry ſooner than greaſe;—*greaſe*, (not tar) is certainly the beſt thing to promote the growth of wool. The falſe opinion that tar occaſions a large produce of wool, has induced many farmers to lay it on ſo copiouſly, mixing with it little or no butter, that they have rendered the wool almoſt uſeleſs. It is long ſince I inveighed againſt the practice of tarring Sheep; and many ſenſible farmers, not deaf to conviction, tried the experiment, by leaving a certain number of their flock *untarred;* the conſequence of which has been, that the Sheep not tarred throve better than thoſe that were tarred; produced more and better wool, while the Sheep themſelves were free from every diſeaſe.

But ſecondly, it is ſaid, "Tar beats off the "rain, and keeps the Sheep warm during win-"ter."——Nature, as I obſerved before, has taken care to fortify the brute creation with ſuch cloathing as beſt ſuits the different climates in which

which they live; and even to increaſe or diminiſh it, according as the change of ſeaſons ſhall render it neceſſary. If any one, however, fooliſhly imagines that Sheep need ſome additional *coat* to beat off the rain, or ſkreen them from the inclemency of the weather, the following experiment will prove the inſufficiency of tar. Let him apply to his naked body, in the depth of winter, the ſkin of a Sheep that has never been tarred, and, at a convenient time afterwards, another that is tarred; I am perſuaded he will find the former much warmer than the latter: And can we entertain a doubt but it will have the ſame effect on the Sheep themſelves? This being really the caſe, and the ſkilful farmer wiſhing to keep his Sheep as much as poſſible from rain and cold, ſo neceſſary for their preſervation, what can anſwer that purpoſe ſo well as the covering which kind nature has ſo amply provided for them? But if this experiment will not ſatisfy him, let him take a handful of fine wool that was never tarred, and another that has undergone that operation; let both be expoſed to a heavy rain; and let that handful of wool that beſt throws off the rain decide the point in queſtion. Experience convinces me that the deciſion will go in favour of that which had never been tarred.—Much tar put on the coarſe-wooled Sheep cauſes the wool to

ſhed; and inſtead of being ſerviceable to theſe valuable animals in rainy weather, every ſhower that falls wets them to the ſkin; whereas, greaſe, or any oily ſubſtance, rubbed on their backs defends them from the rain. It is alſo more natural to ſuppoſe there muſt be a properer degree of warmth in a fleece of good thick wool, than in a plaſter of corroſive, glutinous tar, that adheres to the very ſkin during the moſt rigorous ſeaſon. It is a melancholy fact, that ſome farmers have tarred their Sheep ſo much, that they have dropped down on the ground. In this caſe, if the paſture be not rich, and the Sheep very ſtrong, the tar will remain on their backs all winter, and in the ſpring, when they ſhould be fitteſt for ſale, being in a bad condition, many of them die; for this load of tar on their backs diſables them from ſeeking food, injures the quality of the wool, and, ſtopping the growth of it, inſtead of increaſing its weight (the original intention of tarring), it really diminiſhes it, and leaves the cunning farmer a dupe to his avarice.——Tar, therefore, while it prevents the natural increaſe of wool, neither ſkreens the Sheep from rain, nor keeps them warm during winter.

In the laſt place, it is averred, that "Tar "deſtroys the vermin and cures the ſcab."——

This

This is the moſt plauſible propoſition of the whole, carrying with it a colour of truth; and is, indeed, the only circumſtance in which tar may be uſed, if uſed at all. Now as tar is undoubtedly prejudicial to the growth and quality of wool, as well as to the health of the Sheep, eſpecially if laid on in large quantities; in what degree ſoever it be uſed, in the ſame proportion will the fleece be damaged, and the Sheep infected, though the effects, if uſed ſparingly, may not be perceptible.—This being really the caſe, if, when Sheep are infected with the ſcab, or infeſted with vermin, we can adminiſter a topical remedy (which ſhall be given at the end of this chapter), that will prove innoxious to the wool as well as the Sheep, in my opinion we ought entirely to reject the former, and moſt willingly embrace the latter.

I am ſenſible the tarring of Sheep has been long practiſed in this country, and that it is no eaſy matter to eradicate a cuſtom which has become inveterate by time, eſpecially among the lower claſs of people. To theſe I would beg leave to obſerve, that *their* grandfathers as firmly believed in witchcraft, as *they* are convinced that Sheep cannot live without being tarred: and many poor old women were ſhamefully burnt for being witches, for no other cauſe

but

but that they were more ſenſible than their neighbours. This inhuman practice has happily been long aboliſhed; and may the tarring of Sheep ſoon be the ſame. The one is as ridiculous as the other was barbarous; nor can theſe poor people give any better reaſon for continuing it, than that their fathers and grandfathers did ſo before them. Thoſe farmers, however, who will not adhere to reaſon, nor be convinced by arguments drawn from experience, I would adviſe them to be more parſimonious of tar, and leſs ſparing of butter. Let them put at leaſt 16 lib. of butter to a Scots pint of tar, allowing half a pound of the mixture to each Sheep; for depend upon it, the more butter and the leſs tar, the greater quantity, and the finer will the wool be, and will bring in any market a much greater price than tarred wool, and be more uſeful to the induſtrious manufacturer.

The noble Lord, whom I have already mentioned, makes uſe of no tar to his Sheep, nor does he ſmear them with any thing in lieu of it; and yet they thrive better than thoſe of his neighbours who practiſe that method, and their wool ſells at five times the price. Moſt of the gentlemen and experienced farmers, who breed Sheep in this country, now follow the example; and I hope the practice will ſoon become as general in

Scotland

Scotland as it undoubtedly is in England, and in every other country where they wiſh to have fine wool.—Nay, I will be bold enough to ſay, that if a calculation could be made of all the Sheep reared in the known world, it would be found that for one Sheep that is ſmeared with tar, ten thouſand receive no other covering than what nature has given them. Tar is of ſuch a hot, penetrating quality, that if you kill a Sheep a few days, nay even a few weeks after being ſmeared with it, and make broth of the mutton, you will have tar ſoup inſtead of mutton broth; in ſhort, tar penetrates not only into the entrails of the Sheep, ſhewing the very ſtreaks of the fingers where it had been laid on the ſkin; but even into the marrow in the bones, entailing endleſs miſery upon theſe poor innocent animals.

Some farmers, in order to deceive the too credulous purchaſer, bedaub their Sheep much with tar, to make them appear black, and then falſely declare it to be their natural colour. This low, mean artifice, as well as the baſe intention of tarring to make the wool heavier, being well underſtood, it is high time this cruel, tricking cuſtom ſhould be aboliſhed.—Our American brethren, indeed, have for ſome time paſt made uſe of this *precious* ointment,

mixed

mixed with feathers, as a preſervative for men; and I have no objection the practice ſhould be continued to ſuch as ſtand in need of it, convinced that *they* deſerve to be ſmeared with tar, and ſuch like dirt, much better than our poor harmleſs Sheep; and that, by this time, they would be glad of any covering. I would therefore humbly propoſe, that Government ſhould allow them the ſame bounty for keeping their tar at home, as they do for ſending it hither, as we can be ſupplied with plenty of it for every neceſſary purpoſe from Norway. I would alſo have Boſtonians ſtrictly enjoined to tar all the hogs, tups, rams and *croſs-grown* beaſts in that country; and that their vermin of clergy ſhould be inſtructed to adminiſter that *uſeful* ſalve to the bodies of their flocks, as ſoon as they are able to carry arms againſt God, their king, and mother country.

I ſhould not have been ſo prolix on this ſubject, nor have ſwelled the preſent ſection to ſo great a length, were I not duly ſenſible of the importanee of its object, which is, the total ſuppreſſion of tarring Sheep. In the courſe of my two laſt tours, I was happy to find that this cuſtom, ſo juſtly decried, was almoſt in diſuſe; and that the good effects thereof had been felt by thoſe farmers, who had either laid it wholly aſide,

or

or who had mixed with the tar three times the quantity of butter they were wont to do; by which means the Sheep weathered the winter better, were more healthy, (not loſing one Sheep now by diſeaſe for five they loſt formerly), than when the cruel operation of tarring was more generally practiſed, and the wool much more in quantity, and infinitely better in quality:—Add to this, the labour and trouble they ſave the induſtrious manufacturer, who, notwithſtanding inconceivable pains, can never bring tarred wool to its priſtine purity. Now, as the only plauſible reaſon for uſing tar is, when Sheep are infected with the *ſcab* or *vermin;* and, ſince I have proved that tar is very detrimental to the wool, I am clearly of opinion, the pernicious conſequences, ariſing from the uſe of it, ſhould induce us to lay it wholly aſide; and in lieu of *tar* for the cure of the above diſeaſes, allowing it to be an infallible remedy, either of the following ought to be ſubſtituted in its room.

Receipt for Scabbed Sheep.

I.

"BOIL half a pound of Tobacco among ſix chopins of chamber-lie, and a handful of the tops of broom; ſtrain off and bottle the liquid; to each bottle

bottle put a gill of the ſpirit of turpentine: bore a hole through the cork and put a gooſe-quill in it; ſhake the mixture through the quill upon the ſcab and round it. If the ſcab is hard it muſt be done twice."

N. B. A little *ſoft ſoap* * may be mixed with it; and when the Sheep are rubbed over with it, it not only cures the ſcab, and deſtroys the vermin, but enables them to ſtand the winter, and frees them from moſt of the other diſeaſes to which they are ſubject. It is further to be noticed, that the ſtems and refuſe of tobacco anſwer exceedingly well for the above.

Receipt

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* *I have been told by a ſenſible, judicious farmer, that* ſoft ſoap *alone (which may be had at Leith of as good a quality as any where in Europe), applied to any part that is affected with itching or ſcab, removes it ſooner than any article Sheep can be rubbed with. Indeed if we may judge by the materials of which it is made, it is certainly the beſt ingredient that can be applied to them, and if rubbed on in time, it never fails to remove the cauſe of the complaint.*

Receipt for killing the Maggot, and curing the Scab in Sheep.

II.

A GENTLEMAN of my acquaintance has inveſtigated a compoſition for killing the maggot, and curing the ſcab in Sheep; which valuable article he ſells at a very moderate price. I am ignorant myſelf of its component parts, otherwiſe the public ſhould have been favoured with it; but as the expence of purchaſing it is ſmall, and its good effects known and experienced by many, my regard to my friend, and the public in general, oblige me to mention it, which I ſhall do by an extract from this Gentleman's letter to me of the 31ſt May, 1777.

"I HAVE alſo ſent you a baſket-bottle of an article which we rather improperly call *Brown Spirits*, it being an Oil which of late we have introduced into the Sheep countries for killing the maggot, and curing the ſcab in Sheep. It is a ſpeedy and effectual cure for theſe complaints, beſides being a very healthful application to the Sheep. A very rational farmer, laſt ſummer, mixed with this brown ſpirit about one third of train or whale-oil, which he finds takes

off that extreme pungency of the *brown ſpirits* or *oil* in its application. The method of making uſe of it is, by ſparingly anointing the parts of the Sheep affected with a feather dipped in thoſe ſpirits mixed with train-oil. One application generally has the wiſhed-for ſucceſs, which in no wiſe injures the wool.—This ſame farmer, inſtead of *ſalving* his large flock with tar againſt winter, applied this mixture; the effect of which was, that not one Sheep died, altho' many of thoſe he had *ſalved* did. You may think I puff it away like a quack-medicine; but as it has already been inſtrumental in ſaving the lives of hundreds, I may ſay thouſands, of that uſeful animal, I wiſh to propagate its uſe for that purpoſe.—The Sheep-water in the keg ſent herewith is the real ſpirit of tar, which we have lately begun to make for the ſame diſorder; but as it has not been tried, we ſend it you *gratis* for experiment, not doubting its efficacy for the cure of the ſcab in any animal. We were obliged to give away the brown ſpirits at firſt, and with difficulty got the obſtinate farmer to make trial of it.

Yours, &c."

N. B. Any perſon willing to try it, by ſending to me ſhall have it without expence.

CHAP.

CHAP. I.

SECT. III.

Of the Advantages of propagating Whins on Sheep-farms; and Thoughts on the Practice of burning Heather.

IN the laſt ſection I treated largely on the growth and management of wool, proving that nothing can anſwer ſo well as the natural covering of Sheep to ſecure them from wet or cold: I come now in the next place to recommend the propagation of whins on Sheep-farms, as affording a proper and convenient ſhelter for Sheep, keeping them from wet and the inclemency of the weather.

Our forefathers, who, it will be allowed, in ſome matters were as wiſe as ourſelves, were ſo ſenſible of the favourable circumſtances attending having whins or gorſe on Sheep-farms, that a premium was given, by virtue of a Scots Act of Parliament, for propagating this ſhrub here, which was originally imported from France. The advantages accruing to Sheep-

farmers who have plantations of them are of no ſmall moment; as they not only afford the Sheep a moſt comfortable protection from rain and cold (far preferable to houſing them, which ſullies and depraves the wool), but alſo, in tempeſtuous weather, prevent the hay from being blown off. A nobleman in the county of Fife, with whom I have the honour to be acquainted, told me that ſome of his old tenants had informed him, that their grandfathers remembered the time when there was not a whin in all Fifeſhire; but that, ſenſible of the good effects ariſing from them to the Sheep, yielding food and ſhelter when moſt wanted, they had directed their attention to the propagation of this uſeful ſhrub. True it is, the production of it has been ſomewhat neglected in the Sheep-counties in the ſouth of Scotland, where they are much wanted; but as its utility is well known, now that we are increaſing the number and improving the breed of our Sheep, I alſo recommend a more general increaſe and propagation of whins, which, as I have already obſerved, while they ſhelter them from the moſt rigorous ſtorm, offer them food edible and wholeſome. Thoſe who mean to propagate them ſhould do it on a ſouth expoſure, upon a loamy, dry ſoil; and they may be raiſed to advantage from the ſeed, which ſhould be ſown in March.—Plantations of them in different

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parts of the farm would preclude the neceſſity of houſing the Sheep at night, which is exceedingly injurious to the quality of the wool.

Some gentlemen, inſtead of whins, recommend plantations of firs, as extremely uſeful in farms, affirming that they afford good ſhelter for Sheep, and are alſo convenient for laying down hay on the ſides of them, in time of a ſtorm, which they ſay would otherwiſe be blown off. Now, there is not a ſingle advantage ariſing to Sheep from a plantation of firs, which is not derived from whins; although there are many iſſuing from the latter not competent with the former. Beſides, every perſon in his ſenſes muſt allow, that the drops of rain which fall from trees are certain deſtruction to Sheep; and as fir-trees afford no food, and at beſt but a dangerous ſhelter, whins, which have both theſe qualities (the laſt in a ſuperlative degree), undoubtedly deſerve the preference. For my part, I was never againſt planting of any kind, whether for ſhelter, uſe, or ornament; but I am ſure, in the preſent caſe, firs ſhould give place to whins; nor could I think I had diſcharged my duty to a grateful public, without drawing a comparative view of the qualities and advantages of both; leaving the judicious farmer

to adopt that method which reaſon and prudence ſhall ſuggeſt.

The next beſt ſhelter to whins is old heather: but as many farmers are in the practice of burning it, I ſhall offer my thoughts and ſentiments on this ſubject.

It is an incontrovertible fact, that Sheep manure and improve the very ground they feed upon, and cauſe fine white clover, a native plant of Scotland, to ſpring up under their feet. Sheep's *tath* is the richeſt manure we have, except pigeon's dung; and experience teaches us, where Sheep go and *ted* among the heather, they enrich the ground ſo faſt that the heather diſappears gradually,—in a few years is totally eradicated, and is ſucceeded by a rich white clover. It is on this account that the moſt ſkilful, as well as the moſt extenſive farmers are unanimous againſt burning it. As ſome, however, ſtill adhere to this practice, ſo pernicious to the ſoil, I ſhall attempt to point out the advantages and diſadvantages that attend it, and in what caſes it may be done with propriety.

In the firſt place, it is ſaid, there are many Highland farms that would not keep near ſo many Sheep, if the heather upon them were not

not to be burnt. Old heather, they ſay, is of no farther uſe for Sheep than to ſerve as a ſhelter in bad weather, or in lambing time, it being ſo ſtrong the Sheep cannot eat it; and experience teaches us it will ſtand an age without the leaſt decay. In anſwer to this, let it be remembered, that for ſeveral obvious reaſons, an extenſive Sheep farm, having no heather upon it, is by far leſs valuable than one that is heathered. For, beſides that young heather is allowed to be good for fattening Sheep, the *older* offers them a comfortable protection from the inclemency of the weather. It may, however, be proper to burn yearly a part of that which is very old, and conſequently not edible, even on the higheſt part of the farm, provided there be a ſufficiency of it left on the lower part for the above purpoſes. When, therefore, there is an uſeleſs quantity of old heather, and that the farmer chuſes to burn it, let it be done in parcels about the beginning of September, when the ground is pretty moiſt, and then the burnt ground may produce good paſture; but otherwiſe, in burning the heather, you burn the ſoil, to the great detriment of the farm. It ſhould, however, be obſerved, that heather growing upon a clayey ſoil, when burnt ſcarcely ever appears again; but that on moſſy ground vegetates the faſter, and with more luxuriancy the oftener

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it is burnt, and conſequently is more fit for paſture.

Experience likewiſe teaches us, that heathy land, having a mixture of *earth* and *moſs*, is capable of improvement. Large tracts of this ſort, by being drained, and having the ſurface pared and burnt, and the aſhes ſpread out with a mixture of *earth* and *lime*, have ſo meliorated the ſoil, as to yield very grateful returns both of corn and graſs: But, when the ſurface is entirely moſs, without any mixture of earth, it is nothing better than an inert, lifeleſs maſs, without vegetative powers, incapable of bearing any thing elſe than heather and bent-graſs, its natural produce. To bring tracts of muir-ground of this kind into a condition fit for vegetation, is a work of years, and attended with no inconſiderable expence; neither ſhould the farmer attempt to raiſe any kind of grain from them, till the ſoil is improved, and brought into a ſtate of activity by dung and lime. Dung, as it affords an additional nouriſhment to the ſoil, is productive of immediate advantage to the farmer; for, by its quick aſſimilation with the particles of earth, it raiſes a fermentation wherever diffuſed, and converts it into an active ſtate fit for vegetation.—If the compoſt, however, be of ſeveral kinds, it ſhould be often turned, that the diſ-

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ferent materials of which it is compoſed may be thoroughly mixed and incorporated; and before it be put on the land, be allowed to ferment itſelf into its ſmalleſt particles (eſpecially if the muir-ground be cold,) that its eſſence may be the more readily communicated to the ſoil, upon which it acts as a powerful ſtimulus. The beſt time to lay it on is in autumn preceding the ſowing, ploughing it down immediately; from which mode of procedure, the dung being inſeparably conjoined with the earth, the moſt favourable conſequences will enſue.

Lime is not, like dung, attended with immediate improvement: It affords no additional nouriſhment to the ſoil upon which it is put: It is poſſeſſed of no vegetative principle; but communicates a ſtimulus to the principles of vegetation, of which the ſoil is naturally poſſeſſed; warming, quickening, and putting into action its dormant powers.—If the muir-land be ſomewhat dry and warm, the effects of lime may be perceptible in two years from the time of its application; but if wet and cold, not till three or four: For which reaſon it is more adviſable to lime muir-fields before they are broken up than after ſowing, and that at leaſt one year before a crop be gathered.—Every farmer who ſtudies his own intereſt will by no means paſ-

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ture his field in the autumn following, nor even in the ſpring; for the ſoil, not having acquired a degree of firmneſs ſufficient to reſiſt the tread of the cattle, the leaſt reflection will point out the damage it muſt receive in this way, as well as afterwards by the froſt; for the tender roots of the graſs, being left almoſt without covering during the winter, will be deſtroyed, and the enſuing crop very ſcanty; whereas, by its being left unpaſtured, the field will be doubly advantaged by its covering in winter, and by its manure in the ſpring; and the ſucceeding crop will be more early and luxuriant.—But, to return to my principal ſubject:——

When I had occaſion to croſs the country, where heather had been burnt indiſcriminately, with reſpect to ſoil, time, and other circumſtances, I could diſcover no good effects from the practice; and unleſs it be done under the predicaments above-mentioned, common ſenſe will convince us of its bad tendency. My opinion in this matter is not ſingular; it coincides with that of the moſt ſkilful in agriculture, who ſeem to be unanimous againſt burning it at all, and is therefore diſuſed by all the gentlemen and farmers in the counties of Aberdeen, Mearns, and others adjacent. Mr Barclay of Urie, whoſe knowledge in farming will not be called in queſ-

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tion by any, is ſtrongly of this opinion.—This gentleman has alſo experienced, that Sheep feeding on heathery ground, cauſe the heather to diſappear gradually, and fine clover to ſpring up in its room. This change is juſtly attributed to the Sheep's *tath*, the quantity of which muſt be proportioned to the extent of the heathery ground intended to be improved; which may be effected in the following manner. Let the Sheep, well fed during the day, be led ſucceſſively at night to a particular ſpot of heathery ground, confined in folds till the tath be of a certain thickneſs; the conſequence of which will be, that the heather will gradually vaniſh, and fine graſs ſucceed; and by a continuation of this practice, large tracts of land may be improved to great advantage.

It has been ſaid by one of my correſpondents, who requeſted a particular deſcription of the ſoil improveable by Sheep's dung, that he had made the trial and found it ineffectual, even though the *tath* was four inches thick.—This might probably have been owing to the heather being very old, to the ſingular quality of the ſoil, or to ſome other latent cauſe. As for my part, I am not ſo experienced in farming as to know the various qualities of the ſoil in the different counties of Scotland; neither do I know on what parti-

cular ſoil the effect contended for does not follow: but I have remarked in all places, where I had occaſion to travel, that where the greateſt number of Sheep are paſtured, and proper folds erected for keeping them together, there white clover comes up much more luxuriant than in places not paſtured with that uſeful animal, even though the ſoil of the former ſhould be greatly inferiour to that of the latter; which conſequence can be attributed to nothing elſe but the Sheep's tath.

In my laſt tour I was agreeably ſurpriſed to find the face of the country had aſſumed a much better appearance than formerly. In Argyleſhire in particular, the ſides of the hills were in a much better plight than they were ever known to be, and diſplayed a verdure and exuberance (if I may be allowed the expreſſion) unknown, till the inhabitants began to increaſe the number of Sheep. Similar cauſes will produce ſimilar effects; ſo that when the breeding, and increaſing of the number of Sheep ſhall be generally adopted in our Highlands, the vaſt chain of hills (deſigned by providence for the propagation and maintenance of this precious animal), heretofore barren and deſolate, will be covered with a rich paſture by the very Sheep themſelves, who, while feeding on their produce, cauſe a ſucceſſion

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of more abundant proviſion to vegetate for their own ſupport, and at laſt voluntarily offer themſelves as food and cloathing to ungrateful man.

For the ſtill greater preſervation of this animal, it will not be thought altogether improper to intimate, in this place, to the farmers in general, whoſe grounds are infeſted with foxes and eagles, that they ought to purſue the moſt effectual method to deſtroy and extirpate them. The gentlemen of the county of Sutherland have much merit in having aſſeſſed themſelves, for this ſalutary purpoſe, in no leſs a ſum than 463 l. 15 s. 3 d. *Sterling*, from the year 1769, to the 30th April 1777. According to the record books of the county, there appear to have been deſtroyed in this ſpace no leſs than one thouſand ſix hundred and ſixty foxes, one hundred and ten cubs, and one hundred and forty-eight eagles; the ſeparate premiums given for which were, for every fox and eagle five ſhillings, and for every cub one ſhilling and ſixpence. —Before this was done no farmer durſt riſk a ſingle ſheep out at night; now they do it with ſafety.

A correſpondent of mine informs me, that he had lately made uſe of the *nux vomica*, as a poiſon for foxes, with much ſucceſs. He firſt re-

duces it to powder with a raſp; and finds that four nuts make a ſufficient doſe. It is mixed with a piece of fleſh about the ſize of a hen's egg. He then lays down the bait, and ſticks into the ground a piece of wood, at the diſtance of a yard or two from it, to direct him where to find it next morning, in caſe it ſhould not be taken away or eaten by a fox or eagle. The beſt enticement to draw a fox to the poiſon is, a piece of any ſort of fleſh (except that of dogs), or four or five haddocks, or indeed any kind of fiſh that have lain in a dung-hill for ſome days; the ranker the ſmell the better.

Beſides eagles, there are other carnivorous birds of prey very deſtructive to Sheep, the lambs eſpecially. I would therefore alſo recommend the free uſe of the gun, being clearly of opinion, that to deprive the farmer of this engine of deſtruction would be in a manner robbing him of his lambs, and conſequently of his property. Were theſe methods to be generally followed, I am perſuaded that in a few years there would not be a fox or an eagle left in the whole Highlands of Scotland.

I ſhall conclude this ſection with obſerving, that another great deſtruction to Sheep is, the number of uſeleſs dogs kept in the country.

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The increaſe of them is attended with no leſs dangerous conſequences than that of foxes or eagles. It is a melancholy fact, that within theſe few years, three hundred Sheep, in the circuit of a few miles round Edinburgh, have been devoured or torn to pieces by theſe vermin. This calls out for the immediate interpoſition of ſome ſalutary law or tax to ſuppreſs the uſeleſs number. There is hardly a porter or chairman but muſt have his dog: and as many of them are not ſupplied by their owners with neceſſary food, it is natural to ſuppoſe they ſhould betake them to the fields in ſearch of it; where, impelled by the dictates of nature to ſatisfy a craving appetite, they fall upon the harmleſs Sheep, kill and devour them, to the prejudice of their owners, as well as to the loſs of the country.

CHAP. I.

SECT. IV.

Of the proper Paſture and Management of Sheep.

IT will now be expected I ſhould ſay ſomething on the paſture fit for Sheep, and the manner of breeding and managing them. It ſeems to be generally admitted, and indeed what I have often obſerved, that hilly paſture (with which this country abounds), is the beſt adapted for Sheep, and in which they moſt delight. It is true we have ſome very fine cornlands; but theſe bear but a ſmall proportion to our high grounds, which are only fit for paſturing Sheep and black cattle. Now, beſides the vaſt tracts of high land in Scotland, which nature intended for no other purpoſe than what I have juſt mentioned, there are many thouſand acres of land in tillage, that do not, at moſt, return the laborious huſbandman threefold, which, if converted into Sheep-walks, would be preſently more lucrative to the te-

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nants, and in future more advantageous to the landlords.—If the out-fields of extenſive farms were all to be put to this uſe, the in-fields would ſoon be in much higher order, and better fitted for vegetation; as all the dung in the barn-yards, formerly thinly ſpread in ſcanty portions over the whole farm, might then be applied to the beſt land only.—Experience, which will point out the propereſt method of laying out the out-field lands of extenſive farms into Sheep-walks, according to the variety of ſoils that may occur, will alſo demonſtrate to the ſatisfaction of the eſſayiſt, which is the moſt advantageous to rear; corn, Sheep, or black cattle.

After all, though it muſt be acknowledged, that many gentlemen and farmers have greatly improved their lands within theſe few years; yet it will not be denied, that many have thrown away their money and labour, by endeavouring to make corn grow on a ſoil where nature never intended it ſhould ripen. Land that lies one thouſand feet above the ſurface of the ſea in this country, will ſeldom, if ever, bring corn to perfection.—There are ſome particular dry ſpots that may, in very warm ſeaſons, bring grain to maturity; but this is exceedingly uncertain, while you are always ſure

of ſucceſs, and a much more proportionable profit in raiſing, upon the ſame ground, either Sheep or black cattle. It is for this reaſon I beg leave to recommend the practice of the ſtore-farmers in the weſtern Highlands, who (as I am well informed by a gentleman who has frequently viſited them within theſe ten years) have now very conſiderable ſpaces of theſe lands wholly occupied by Sheep, where formerly none were to be ſeen; and that from ſome of theſe Sheep-farms four thouſand lambs have been ſent to market in one year. The method of feeding and rearing Sheep in thoſe parts anſwers ſo well, that two of the ſtore-maſters have purchaſed the property of what, a few years ago, they only rented.—The amazing ſucceſs attending undertakings of this kind has induced many to embark in the ſame project; and large tracts of hills, which, not long ago, contributed little towards the rearing of black cattle (their only ſtock), are now covered with Sheep, from which are derived incredible profits. If this ſcheme ſucceeds in a particular diſtrict, it will certainly anſwer in other places enjoying ſimilar advantages; and we all know there are many hundred ſquare miles in the weſt and north parts of Scotland, equally capable of this tranſmutation, to further which ſhould be the care of every well-wiſher to his country. I

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cannot help once more obſerving, that the Sheep have greatly improved the paſture upon theſe weſtern hills, thereby increaſing their own value, and producing wool of an incredible fineneſs. In ſhort, thoſe hills which a few years ago appeared to be nothing but barren, ſapleſs heaths, are now, by the manure they receive from the dung of the Sheep, converted into a beautiful rich verdure, affording a moſt agreeable proſpect, at the diſtance of ſeveral miles, and diſtinguiſhable from thoſe that are not paſtured with that uſeful animal.

Many things are neceſſary to be attended to by the breeders of Sheep; but as I do not pretend to be maſter of the ſubject, I ſhall deduce my arguments from authors who have profeſſedly written on this matter; preſuming my readers will not be diſpleaſed with the following curious and intereſting extracts on the breeding of Sheep, from a letter written by a gentleman in Spain to Mr Peter Collinſon, F. R. S.

"THERE are two kinds of Sheep in Spain; the coarſe-wooled Sheep, who remain all their lives in their native country, and who are houſed every night in winter; and the fine-wooled Sheep, who are all their lives in the open air; who travel every ſummer from the cool moun-

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tains of the northern parts of Spain, to feed all the winter on the ſouthern warm plains of Andaluſia, Manca, and Eſtremadura. From computations made with the utmoſt accuracy, it has appeared, that there are five millions of fine-wooled Sheep in Spain; and that the wool and fleſh of a flock of ten thouſand Sheep produced yearly about twenty-four reals a-head, which we will ſuppoſe to be near the value of twelve Engliſh ſixpences. Of theſe but one goes clear a-head to the owner yearly; three ſixpences a-head go yearly to the king, and the other eight go to the expences of paſture, tithes, ſhepherds, dogs, ſalt, ſhearing, &c.

"Thus the annual product of the five millions of Sheep amounts to little leſs than thirty-ſeven millions and a half of ſixpences, of which there are about three millions and a half for the owners, above fifteen millions enter into the treaſury, and ſeven millions and a half go to the benefit of the public. Hence it is the kings of Spain call theſe flocks, in their ordinances, *The precious jewel of the crown.*

"Formerly this jewel was really ſet in the crown. A ſucceſſion of many kings were the lords of all the flocks. Hence the great number of ordinances, penal laws, privileges, and immunities,

munities, which iſſued forth in different reigns for the preſervation and ſpecial government of the Sheep: Hence a royal council was formed, under the title of *The council of the grand royal flock*, which exiſts to this day, though the king has not a ſingle Sheep. Various exigencies of ſtate, in different reigns, alienated, by degrees, the whole grand flock from the crown, together with all its privileges, which were collected and publiſhed in the year 1731, under the title of *The laws of the royal flock*; a volume in large folio, of above five hundred pages.

"The wars and wants of Philip I.'s reign forced that king to ſell forty thouſand Sheep to the Marquis of Iturbleta, which was the laſt flock of the crown.

"Ten thouſand Sheep compoſe a flock, which is divided into ten tribes. One man has the conduct of all. He muſt be the owner of four or five hundred Sheep, ſtrong, active, vigilant, intelligent in paſture, in the weather, and in the diſeaſes of Sheep. He has abſolute dominion over fifty ſhepherds and fifty dogs, five of each to a tribe. He chuſes them, he chaſtiſes them, or diſcharges them at will. He is the *præpoſitus*, or chief ſhepherd of the whole flock. You may judge of his importance by his ſalary: He has

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forty pounds a-year and a horſe; whereas the firſt ſhepherd of a tribe has but forty ſhillings a-year, the ſecond thirty-four, the third twenty-five, the fourth fifteen, and a boy ten. All their allowance is two pounds of bread a-day each. They may keep a few goats and ſheep in the flock; but the wool is for the maſter; they have only the lambs and the fleſh. The chief ſhepherd gives them three ſhillings in April, and three in October, by way of regale for the road; and theſe are all the ſweets theſe miſerable wretches enjoy. Expoſed every day in the year to all weathers, and every night to lie in a hut. Thus fare, and thus live, generally to old age, twenty-five thouſand men, who clothe kings in ſcarlet, and biſhops in purple; for that is the number computed to keep the fine-wooled Sheep of Spain, with the ſame number of dogs of the large maſtiff kind, who are allowed two pounds of bread a-piece *per* day. I often ſaw theſe flocks in the ſummer ſheep-walks of the hills and vales of Leo, Old Caſtile, Cuenca, and Arragon. I ſaw them in their winter plains of Manca, Eſtremadura, and Andaluſia. I often met them in their peregrination from the one to the other. I ſaw and I ſaw again. One eye is worth a hundred ears. I inquired, I obſerved, and even made experiments. All this was done, when I happily got acquainted with a good plain

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old friar, who had a conſummate knowledge of all the mechanical, low, minute circumſtances and œconomy of a flock. He told me that he was the ſon of a ſhepherd; that he had followed, fifteen long years, the tribe of Sheep his father led; that, at twenty-five years of age, he begged an old primer; that at thirty he could read; that at thirty-ſix he had learned Latin enough to read maſs and the breviary; that he was ordained by Don Juan Navarre, Lord Biſhop of Albarrazin, who, as it is known, even to a proverb, in Spain, has ordained thouſands, declaring, theſe forty years, in a loud voice, "That a prieſt is the moſt precious boon which "a biſhop can beſtow, in the name of God, to "mankind, even though he was as unlearned as "an apoſtle." That thus ordained, he entered into the order of St Francis; that he had never meddled in their affairs theſe twenty-four years paſt, but only ſaid maſs, confeſſed, inſtructed, and gave an eye to about five hundred wedders, who grazed in the neighbouring downs for the uſe of the convent; that he had read the Bible, the lives of the Saints, and the lives of the Popes, with no other view in the world but to find out all that was ſaid about ſhepherds; that good Abel was the firſt ſhepherd; that all the patriarchs were ſhepherds; that the meek ſhepherd Moſes was choſen to deliver the people of

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God out of bondage; that Saul, in ſeeking his father's flocks, found a kingdom; that David went out from his flock to ſlay the Philiſtine giant; that fourteen thouſand Sheep was the chief reward Job received for his invincible patience; that Iſidro, the protecting ſaint of Madrid, was not, as it is vulgarly believed, an huſband-man, like wicked Cain, but that he was really a keeper of Sheep; that the great Pope Sixtus Quintus was verily and truly a ſhepherd, and not a ſwine-herd; that, for his part, he had forſaken his Sheep to become a ſhepherd of men. He had all theſe things by heart, juſt as he had all the minute circumſtances of the Sheep he followed; and this letter would have been imperfect had I not met with him.

"The firſt thing the ſhepherd does, when the flock returns from the ſouth to their ſummer downs, is to give them as much ſalt as they will eat. Every owner allows his flock of a thouſand Sheep one hundred aroves, or twenty-five quintals of ſalt, which the flock eats in about five months. They eat none in their journey, nor in their winter-walk. This has ever been the cuſtom; and it is the true reaſon why the kings of Spain cannot raiſe the price of ſalt to the height it is in France; for it would tempt the ſhepherds to ſtint the Sheep, which,

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it is believed, would weaken their conſtitutions, and degrade the wool. The ſhepherd places fifty or ſixty flat ſtones at about five ſteps diſtance from each other; he ſtrews ſalt upon each ſtone; he leads the flock ſlowly through the ſtones, and every Sheep eats to his liking: But then they never eat a grain of ſalt when they are feeding on lime-ſtone land, whether it be on the graſs of the downs, or on the little plants on the corn fields after harveſt-home. The ſhepherd muſt not ſuffer them to ſtay too long without ſalt; he leads them into a ſpot of argillaceous, clayey ſoil, and in a quarter of an hour's feeding they march to the ſtones, and devour the ſalt. If they meet a ſpot of the mixed ſoil, which often happens, they eat ſalt in proportion. Aſk the ſhepherd why the Sheep eat no ſalt in lime-ſtone ſoil, and but little in the mixed? Becauſe, Sir, it is corn land. I know, and indeed who does not know, that lime abounds in ſaline matter? But then the ſalt, which chymiſts extract from it, may not be the genuine ſalt of the lime-ſtone before calcination, for the fire may form new combinations. It may be ſea-ſalt, or at leaſt the muriatic acid, which riſes in the vegetation of graſs, and ſatisfies the Sheep's taſte for ſalt. The latter end of July the rams are turned into the tribe of ewes, regulated at ſix or ſeven rams for every hundred. When

the ſhepherd judges they are ſerved, he collects the rams into a ſeparate tribe to feed apart: But then there is another tribe of rams that feed apart too, and never ſerve the ewes, but which are merely for wool, and for the butchery; for, though the wool and fleſh of wedders are finer and more delicate than thoſe of rams, yet the fleece of a ram weighs more than the fleece of a wedder, who is likewiſe ſhorter-lived than the ram; which compenſation is the reaſon there are ſo few tribes of wedders in the royal flock of Spain. The fleeces of three rams generally weigh twenty five pounds: There muſt be the wool of four wedders, and that of five ewes, to weigh twenty-five pounds. There is the ſame diſproportion in their lives, which depend upon their teeth; for, when they fail, they cannot bite the graſs, and therefore are condemned to the knife: The ewes' teeth, from their tender conſtitutions, and the fatigue of breeding, begin to fail after five years of age, the wedders after ſix, and the robuſt rams not till towards eight. It is forbidden to expoſe ram's fleſh to ſale; but the law is eluded, they cut the old rams; and as ſoon as the inciſion is healed, they are ſold to the butchers at a lower price than coarſe-wooled wedders. That is the reaſon ſuch bad mutton is generally eaten in Madrid, and that is the reaſon there are more

rams

rams and fewer lambs ſtones ſold and eaten every day in the year in Madrid, than in the reſt of Europe.

"At the latter end of September they put on the redding or ochre. It is a ponderous irony earth, common in Spain. The ſhepherd diſſolves it in water, and daubs the Sheep's backs with it from the neck to the rump. It is an old cuſtom. Some ſay it mixes with the greaſe of the wool, and ſo becomes a varniſh impenetrable to the rain and cold; others, that its weight keeps the wool down, ſo hinders it from growing long and coarſe; and others, that it acts as an abſorbent earth, receives part of the tranſpiration, which would foul the wool, and make it aſperous.

"The latter end of September the Sheep begin their march towards the low plains. Their itinerary is marked out by immemorial cuſtom, and by ordinances; and is as well regulated as the march of troops. They feed freely in all the wilds and commons they paſs through; but as they muſt neceſſarily paſs through many cultivated ſpots, the proprietors of them are obliged by law to leave a paſſage open for the Sheep, through vineyards, olive-yards, corn-fields, and paſture-land common to towns; and theſe paſſages muſt be at leaſt ninety yards wide, that

they may not be too crowded in a narrow lane. Theſe paſſages are often ſo long, that the poor creatures march ſix or ſeven leagues a-day to get into the open wilds, where the ſhepherd walks ſlow to let them feed at eaſe and reſt; but they never ſtop; they have no day of repoſe; they march at leaſt two leagues a-day, ever following the ſhepherd, always feeding or ſeeking with their heads towards the ground, till they get to their journey's end, which, from the Montana to Eſtremadura, is about one hundred and fifty leagues, which they march in leſs than forty days. The chief ſhepherd's firſt care is, to ſee that each tribe is conducted to the ſame diſtrict it fed on the year before, and where the Sheep yeaned, which they think prevents a variation in the wool; though, indeed, this requires but little care; for it is a notorious truth, that the Sheep would go to that very ſpot of their own accord. His next care is, to fix the toils *, where the Sheep paſs the night, leſt they ſhould

* *The toils are made of Sparto, in meſhes a foot wide, and the thickneſs of a finger, ſo that toils ſerve inſtead of hurdles. The whole ſquare toil is light. Sparto is a ſort of ruſh, which bears twiſting into ropes for coaſting veſſels. It ſwims; hemp ſinks. It is called* Boſs *by the Engliſh ſailors.*

ſhould ſtray, and fall into the jaws of wolves. Laſtly, the ſhepherds make up their poor huts with ſtakes, branches, and brambles; for which end, and for firing, they are allowed, by the law, to cut off one branch from every tree. I believe this to be the reaſon that all the foreſt-trees, near the Sheep-walks in Spain, are as hollow as willow-pollards. The roots of trees, and the quantity of ſap, increaſe yearly with the branches; if you lop off theſe, all the ſap that ſhould go to the annual production, and to the nouriſhment of buds, ſtems, leaves, flowers, fruit, and growth of the branches, remains in the trunk; from hence ſtagnation, fermentation, and rottenneſs. Next comes the time when the ewes begin to drop their lambs, which is the moſt toilſome and moſt ſolicitous part of the paſtoral life. The ſhepherds firſt cull out the barren from the pregnant ewes, which are conducted to the beſt ſhelter, and the others to the bleakeſt parts of the diſtrict. As the lambs fall, they are led apart with their dams to another comfortable ſpot. A third diviſion is made of the laſt yeaned lambs, for whom was allotted, from the beginning, the moſt fertile part, the beſt ſoil, and ſweeteſt graſs of the down, that they may grow as vigorous as the firſt yeaned; for they muſt all march the ſame day towards their ſummer quarters. The ſhepherds perform four ope-

rations upon all the lambs, about the ſame time, in the month of March; but firſt they pay the twentieth lamb; the other half tithe is paid in the winter walk. They cut off their tails five inches below the rump for cleanlineſs: They mark them on the noſe with a hot iron: They ſaw off part of their horns, that the rams neither hurt one another nor the ewes: They render impotent the lambs doomed for docile bell-wethers, to walk at the head of the tribe; they make no inciſion; the ſhepherd turns the teſticles with his finger twenty times about in the ſcrotum, till he twiſts the ſpermatic veſſels as a rope, and they wither away without any danger. As ſoon as the month of April comes about, which is the time of their departure, the Sheep expreſs, by various uneaſy motions, a remarkable reſtleſsneſs, and ſtrong deſire to go off. The ſhepherds muſt exert all their vigilance leſt they ſhould eſcape; and it has often happened, that a tribe has ſtolen a march of three or four leagues upon a ſleepy ſhepherd; but he is ſure to find them, for they return exactly the ſame way they came; and there are many examples of three or four ſtrayed Sheep walking a hundred leagues to the very place they fed in the year before. Thus they all go off towards the ſummer mountains in the ſame order they came; only with this difference, the flocks

that

that go to Leo and Caſtile are ſhorn in the road; where we will ſtay a little to ſee the apparatus of this operation, whilſt the other flocks march to Molina Arragon. They begin to ſhear the firſt of May, provided the weather be fair; for if the wool were not quite dry, the fleeces, which are cloſe piled upon one another, would ferment and rot. It is for this reaſon that the ſhearing-houſes are ſo ſpacious. I ſaw ſome which can contain, in bad weather, twenty thouſand Sheep, and coſt above five thouſand pounds ſterling: beſides, the ewes are creatures of ſuch tender conſtitutions, that, if they were expoſed immediately after ſhearing to the air of a bleak night, they would all periſh.

"There are one hundred and twenty-five ſhearmen employed to ſhear a flock of ten thouſand Sheep; a man ſhears twelve ewes a-day, and but eight rams. The reaſon of this difference is, not only becauſe the rams have larger bodies, ſtronger and more wool; but the ſhearmen dare not tie their feet, as they do thoſe of the unreſiſting ewes. Experience taught, that the bold rebellious ram would ſtruggle even to ſuffocation in captivity under the ſhears: they gently lay him down, they ſtroke his belly, they beguile him out of his fleece. A certain number of Sheep are led into

into the great ſhelter-houſe, which is a parallelogram of four or five hundred feet long, and one hundred wide, where they remain all day; as many as they judge can be diſpatched by the ſhearmen next day, are driven from the ſhelter-hall into a long, narrow, low gut, which is called the *ſweating-place*, where they remain all night, crowded as cloſe together as the ſhepherd can keep them, that they may ſweat plentifully, which, as they ſay, is to ſoften the wool for the ſhears, and oil their edges. They are led by degrees, in the morning, into the ſpacious ſhearing-hall, which joins the ſweating-room. The ſhepherd carries them off as faſt as they are ſheared, to be marked with tar; and as this operation is neceſſarily performed upon one at a time, it gives a fair opportunity to the ſhepherds to cull out for the butchery all the ſheep of the flock who have outlived their teeth. The ſheared Sheep go to the fields to feed a little, if it be fine weather, and they return in the evening to paſs the night in the yard before the houſe, within the ſhelter of the walls; but if it be cold and cloudy, they go into the houſe. They are thus brought by degrees to bear the open air; and their firſt days journies from the ſhearing-houſe to the mountains are ſhort: where we will leave them to conclude their annual peregrination, and go ſee how fare the flocks

of

of Molina Arragon, which have by this time got thither. But while the mule is ſaddling, a word of the ſhorn wool.

" The Sheep and ſhearers diſpatched, the firſt thing done is, to weigh the whole pile of wool: the next is, to divide each fleece into three ſorts of wool; the back and belly give the ſuperfine; the neck and ſides give the fine; the breaſts, ſhoulders, and thighs, the coarſe wool. A different price is fixed upon three claſſes, though the general cuſtom is, to ſell the whole pile together at a mean price. It is ſold after it is waſhed, when it is to go out of the kingdom, or to any conſiderable diſtance in it; for, as it never loſes leſs than half its weight in waſhing, and often more when the ſweating is violent, half the carriage is ſaved.

" Thirty-one leagues S. E. of Madrid, and five leagues S. of the ſource of the river Tagus, is the town of Molina Arragon, capital of a lordſhip of the crown, which is twelve leagues wide, as many long, and almoſt in the center of Spain. The highlands of this little territory are covered with pine-trees; the lowlands feed about one hundred and fifty thouſand Sheep. Here I learnt ſome truths which prove that the three

three following opinions ſhould be ranked among vulgar errors.

" 1. That Sheep eat and love aromatic plants, and that the fleſh of thoſe that feed on hills where ſweet herbs abound, has a fine taſte.

" 2. That ſalt ſprings are not found in the high primitive mountains, but in the low hills and plains only.

" 3. The metallic vapours deſtroy vegetation, that no rocks nor mountains, pregnant with rich veins of ore, are covered with rich vegetable ſoil.

" As my duty obliged me to paſs hundreds of days at the Platillo mine of Molina, I ſaw thouſands of Sheep feed around it. I obſerved that, when the ſhepherd made a pauſe, and let them feed at their will, they ſought only for the fine graſs, and never touched any aromatic plant: that when the creeping ſerpillum was interwoven with the graſs, the Sheep induſtriouſly noſled it aſide to bite a blade, which trouble made them ſoon ſeek out a pure gramineous ſpot. I obſerved too, when the ſhepherd perceived a threatening cloud, and gave a ſignal

ſignal to the dogs to collect the tribe, and then to go behind it, walking apace himſelf to lead the Sheep to ſhelter, that, as they had no time to ſtoop, they would take a ſnap of ſtœchas, roſemary, or any other ſhrub in their way; for Sheep will eat any thing when they are hungry, or when they walk faſt. I ſaw them greedily devour henbane, hemlock, glaucium, and other nauſeous weeds, upon their iſſue out of the ſhearing-houſe. If Sheep loved aromatic plants it would be one of the greateſt misfortunes that could befal the farmers of Spain. The number of bee-hives is incredible. I am almoſt aſhamed to give under my hand that I knew a pariſh prieſt who had five thouſand hives. The bees ſuck all their honey and gather all their wax from the aromatic flowers, which enamel and perfume two-thirds of the Sheep-walks This prieſt cautiouſly ſeizes the queens in a ſmall crape fly-catch; he clips off their wings; their majeſties ſtay at home. He aſſured me that he never loſt a ſwarm from the day of this diſcovery to the day he ſaw me, which I think was five years.

"The ſhepherd's chief care is not to ſuffer the Sheep to go out of their toils till the morning ſun has exhaled the dew of a white froſt, and never let them approach a rivulet or pond after

after a ſhower of hail; for if they ſhould eat the dewy graſs, or drink hail-water, the whole tribe would become melancholy, pine faſt away, and die, as often happened. Hail-water is ſo pernicious to men in this climate, that the people of Molina will not drink the river water after a violent ſhower of hail; experience taught the danger: but let it be ever ſo muddy, and riſe ever ſo high after rain, they drink it without fear. Perhaps this may be the unheeded cauſe of many endemical epidemics of other cities. The Sheep of Andaluſia, who never travel, have coarſe, long, hairy wool: I ſaw a flock in Eſtremadura, whoſe wool trailed on the ground. The itinerant Sheep have ſhort, ſilky, white wool. I do believe, from a few experiments, and long obſervation, that, if the fine-wooled Sheep ſtaid at home in the winter, their wool would become coarſe in a few generations. If the coarſe-wooled Sheep travelled from climate to climate, and lived in the free air, their wool would become fine, ſhort, and ſilky, in a few generations.

"The fineneſs of the wool is due to the animal's paſſing its life in an open air of equal temperature. It is not colder in Andaluſia and Eſtremadura in the winter, than it is in the Montano or Molina in ſummer. There is little

froſt

froſt in Andaluſia. Sometimes it ſnows in June in Molina. I felt a cold day upon the leaſt cloud in ſummer. Conſtant heat, or conſtant cold, with houſing, are the cauſes of coarſe, black wool. All the animals I know, who live in the open air, conſtantly keep up to the colour of their ſires. There are the moſt beautiful brindled Sheep in the world among the coarſe-wooled Sheep of Spain. I never ſaw one amongſt the fine-wooled flock. The free, but leſs abundant perſpiration in the open air, is ſwept away as faſt as it flows; whereas, it is greatly increaſed by the exceſſive heat of numbers of Sheep, houſed all night in a narrow place. It fouls the wool, makes it hairy, and changes its colour. The ſwine of Spain, which paſs their lives in the woods, are all of one colour, as are the wild boars. They have fine, ſilky curled briſtles. Never did a Spaniſh hog's briſtle pierce a ſhoe. What a quantity of dandruff is daily ſecerned from the glands of a ſtabled horſe! the curry-comb and hair-cloth ever in hand: How clean is the ſkin of a horſe that lives in the open air!"

Richard Twiſs, Eſq; who has lately publiſhed travels through Portugal and Spain, agrees with the gentleman above quoted, and gives us the following paſſage on that ſubject:

"March 11. The road over which we travelled this day was ſomewhat hilly; we arrived at noon at the city of Segovia, which ſtands on a hill, at the foot of which runs the ſmall river Ereſma. Segovia is walled, and is about eighty miles diſtant from Valladolid. Between Olmedo and this city we ſaw vaſt numbers of Sheep, the wool of which is accounted the fineſt in Spain. I made enquiry about the Sheep-walks, and concerning the method of managing theſe animals, of which a very juſt account is given by the Abbe de la Porte, in the ſixteenth volume of his *Voyageur Francois*, printed in Paris in 1772. It is as follows:

"Numberleſs flocks of Sheep cover the plains of Segovia, and produce that excellent wool, which makes ſuch an important branch of the commerce of Spain. The kings were anciently the proprietors of the greateſt part of theſe flocks; they have been ſucceſſively alienated for ſtate exigencies. Philip I. was obliged to ſell the laſt fourteen thouſand Sheep, which belonged to the crown, to defray the expences of war. They are, however, ſtill the object of the government's particular attention: In effect, there is a conſiderable exportation of wool, which is uſed all over Europe. Does its ſuperiority depend only on the climate, or on a particular method

method of managing the Sheep? Thoſe that embrace the latter opinion ſay, that there are in Spain two ſorts of Sheep, very different in their fleece, though they appear to be of the ſame breed. The Sheep with coarſe fleeces remain all the year in the ſame place, and in the winter nights they are ſhut up in a fold. On the contrary, the others live always in the open air, and travel twice a-year. During the ſummer they ſtray on the mountains of Leon, of Old Caſtile, of Cuenca, and of Arragon: They paſs the winter on the temperate plains of la Mancha, Eſtremadura, and Andaluſia. According to very exact calculations, there are reckoned in Spain more than five millions of thoſe travelling Sheep with fine wool. It may eaſily be imagined how much care, intelligence, and activity is requiſite from thoſe who have the charge of conducting thoſe vaſt flocks.

"They muſt take particular heed not to let them want ſalt, eſpecially after their return from the ſouth to their ſummer paſturages. That commodity keeps them in health, and hardens their conſtitution, which contributes infinitely to the beauty of the wool. After having paſſed the winter in a temperate climate, they ſet out in the month of April for the mountains.

" The Sheep themſelves ſhow their deſire of changing their place, by many unquiet motions; and that deſire is ſo ſtrong, that the ſhepherds muſt be very watchful to prevent their eſcaping.

" They begin to ſhear them in the month of May, either on the road or after their arrival. It is neceſſary to wait for fine weather; for if their wool was not dry enough, the fleeces being piled on each other would ferment and ſpoil. Towards the end of July, the number of rams neceſſary for propagation are mixed with the Sheep. Six or ſeven rams are ſufficient for a hundred Sheep: Out of a numerous flock of rams, the ſtrongeſt and handſomeſt are choſen for that purpoſe. There are in general very few Sheep in theſe travelling flocks, though their wool is finer, and their fleſh better than that of the rams; but the fleece of theſe is heavier, they live longer, and by that means their total product is more conſiderable. It is eſteemed very eſſential to beſmear theſe animals in the month of September, from the neck to the root of the tail, with a ferruginous earth mixed with water. It is ſaid that this unguent, mixing with the greaſe of the wool, becomes impenetrable to rain and to cold, and that it abſorbs part of the tranſpiration, which would otherwiſe render the fleece rough and coarſe. At the

the end of September the Sheep begin their march towards the lower plains. They travel one hundred and fifty leagues in forty days. When the time comes that the Sheep drop their lambs, the ſhepherds firſt ſeparate thoſe which are ſterile from thoſe which are fruitful: Theſe are guided to the beſt places of ſhelter, and thoſe to the coldeſt parts of the diſtrict. The ſpots which produce the beſt and moſt abundant herbs are alſo allotted for the youngeſt lambs, that, by being fortified with good food, they may be able to depart with the others. The tail is cut off within five inches of the rump to keep them the cleaner. It is an error to believe that the Sheep prefer aromatic plants to others, and that they are more beneficial to them. It is the tender herbs that grow between thoſe plants, that afford the moſt wholeſome nouriſhment for them, and that give a good taſte to their fleſh. They muſt never be led to feed till the ſun has diſſipated the morning dew, and muſt not be allowed to drink immediately after a hail ſtorm, becauſe that water, or wet graſs, renders them melancholy, and makes them languiſh and die.

"It appears then to be certain, that the ſuperiority of the wool in this country is not to be attributed to the climate only; and that it de-

pends in a great meaſure on the precautions a-bove-mentioned; becauſe, in the ſame climate, the Sheep of Andaluſia, which are of the ſame breed, but which are not taken the like care of, have their wool much coarſer. Would it be advantageous in other countries to allot large tracts of land for the paſturage of theſe animals? and would it be as much ſo to the proprietor, as if he had made thoſe lands ſerve for other purpoſes? To theſe countries where lands are ſucceſſively cultivated, flocks of Sheep muſt be conſidered more for the uſe they are of to agriculture, than for their fleeces. Dung is there much more neceſſary than wool. The travelling Sheep furniſh no manure when they wander in the mountains, ſo that they muſt be confined together in lands which require cultivation."

Though I will not pretend to determine how far a ſimilar mode of conduct, as to paſturing Sheep, ought to be followed in this country, yet I humbly think, that ſeveral very uſeful hints may be gathered by the ſpeculative farmer from a ſerious peruſal of the above paſſages; eſpecially with regard to the proper time of ſlaughtering them, which ſhould never exceed that when nature has ſo far rendered uſeleſs their teeth as to diſable them from eating a ſufficient quantity of food to fatten them. I recommend

commend a due obſervance of this particular, as well as a ſpeedy and general trial of giving them *ſalt*, like the French and Spaniards. The effects it produces on Sheep and black cattle, ſhall be a ſubject of inquiry in my next ſection.

Before I conclude the preſent one, I wiſh to convince you, that the Spaniards have long conſidered *Sheep* and their produce as the moſt valuable jewel in the crown. The Engliſh nation, whoſe wiſdom no one will diſpute, have been of the ſame opinion for many ages. Her ſages have, with the greateſt reaſon, preferred the cultivation of wool to mines of ſilver or gold; as it employed the heads and hands of the ingenious and induſtrious, and brought an inexhauſtible fund of wealth into the kingdom, which could be derived from no other ſource.—Conſcious of its being the ſtaple and glory of England, they have ordered that their ſupreme judges, when convened together in the great council of the nation, ſhould be ſeated on woolpacks; that care ſhould be taken never to export any wool, until manufactured into cloth; that none of the breed of their Sheep ſhould ever be allowed to be carried to foreign parts; that the exportation of either Sheep or wool ſhould be a capital crime, and every perſon diſcovered to be any way concerned in it, deſpiſed,

looked

looked upon as an enemy to his country, and branded with public infamy and diſgrace. Nay, ſo much was their attention carried to the encouragement of this invaluable branch (indeed it is of more real conſequence, and yields more profit, than all the trade of England beſides), that they will not ſuffer their dead to be buried in linen, the ſtaple of poor Scotland, but all in woolen, in order that the conſumption of this precious manufacture might not ceaſe with the living, but even be ſent to the grave with the dead.

That wiſe nation has been equally attentive to procure every ingredient made uſe of in this branch of trade at the cheapeſt rates. For this purpoſe, all drugs, dye-ſtuffs, and every other article uſed in the woolen manufacture, are allowed to be imported into every part of Great Britain, duty free; while our fancied and viſionary ſtaple, the *Linen*, is burdened with a very high duty on every article conſumed in it, the rough flax alone excepted, on which, notwithſtanding, there are conſiderable charges, as ſhall be ſhewn in its proper place. Now, if gold flows in from every quarter to our ſiſter kingdom, for the produce of the woolen manufacture, let us imitate her conduct, by vigorouſly proſecuting this lucrative branch, ſince the advantages

vantages of nature and art favour our attempts. If this were once firmly eſtabliſhed among us, poverty and wretchedneſs would no longer haunt our ſtreets, joy and plenty would flow through the land, and chearfulneſs preſide over every countenance. Many patriots have nobly ſtretched forth their generous arms to lay the foundation; perſeverance will raiſe, and compleat the ſuperſtructure of that edifice, which will render Scotland the glory, wonder, and terror of the world.

CHAP.

CHAP. I.

SECT. V.

Of the effects of Salt in fattening Cattle.

HOWEVER ſtrange it may appear to ſome perſons, it is beyond a doubt that Salt not only fattens Sheep, preſerves their health, and hardens their conſtitution, but likewiſe contributes greatly to the fineneſs of their wool.—Thoſe who are dubious of the fact may convince themſelves by experiment. A trial of this kind may be made with very little expence; and if not found to anſwer the expectations conceived from it, the practice can be diſcontinued, while the eſſay is void of danger. If ſalutary conſequences enſue, as I am ſure would be the caſe, the practice ought to be generally adopted; particularly, as ſalt might be given to cattle when hay is either too dear to be purchaſed, or very difficultly procured.

In the Memoirs of the Royal Academy of Sciences at Paris, there is a paper intitled *Phyſical*

Phyſical Obſervations on the effects of Salt in fattening Cattle. As I know ſome farmers who are experimentally convinced of its ſalutary effects, I think it my duty to give ſome extracts of the above performance, having for its end objects of the moſt important kind; which are, the improvement of land, and the increaſe of cattle. It is a ſelf-evident truth, that by increaſing cattle, lands may be improved; and by improving lands, cattle may be multiplied.

That farmer who has a more than ordinary ſtock of working cattle, reaps a double advantage; the one by having his work done in ſeaſon; the other, by enriching a greater proportion of his land, by mean of his additional manure. The only difficulty is, how to maintain an increaſed number, without increaſing the expence.—This, with a degree of plauſibility next to conviction, is affirmed may be done by the uſe of ſalt; to the purport of which are advanced the three following propoſitions:

1. That ſalt, given with the food of cattle, augments the nouriſhment of that food.

2. That, in proportion to the quantity of ſalt eaten by cattle, the effects of that augmentation will be perceivable.

3. That

3. That no ill conſequences will follow from exceſs of ſalt eaten by cattle, even though it ſhould be given them without ſtint.

Theſe propoſitions are ſupported by the following unqueſtionable facts.

In the juriſdiction of Arles, in the county of Provence, there is a diſtrict called the Crau, extending in length about ſix leagues, and in breadth about three; the whole ſurface of which is covered with ſmall rough ſtones, and not a tree or buſh is to be ſeen in the whole diſtrict, except here and there on the borders; yet on this ſpot, ſo ſeemingly ſterile, by the free uſe of ſalt, more numerous flocks of Sheep are bred and reared than upon any other common, of equal extent, throughout the whole kingdom: And, what is no leſs remarkable, the Sheep are healthier, hardier, and endure the ſeverity of the winter with leſs loſs, though they have fewer Sheep-cots for covering than thoſe bred, and fed, on more copious paſtures; and that have, beſides, the advantage of more convenient ſhelter. Add to this, that the wool of the flocks bred and brought up in the Crau, is not only the fineſt in the whole country, but bears the higheſt price of any in France. From hence he concludes, that it is to the unlimited

uſe

uſe of ſalt that theſe ſurpriſing effects are to be aſcribed; for it frequently happens, that the Crau is ſo burnt up in ſummer, that the poor animals are forced to turn up the very ſtones to come at the few blades of graſs that grow around them, and yet none periſh for want of food. Let every excellence, therefore, that can reaſonably be ſuppoſed inherent in the herbage, be aſcribed to it, yet the quantity of it is ſo ſmall, that, without the abundant uſe of ſalt, a fourth part of the Sheep kept in the Crau could not ſubſiſt in it.

But, as a ſtill farther demonſtration that this aſtoniſhing effect is ſolely to be attributed to ſalt, we have, ſays the writer, in Languedoc, on the borders of the Rhone, a ſpot of the ſame kind of ſtony land, in every reſpect ſimilar to that of the Crau; yet, for want of the free uſe of ſalt, that of Languedoc does not maintain a tenth part of the number of Sheep that are brought up in the Crau, though, in other reſpects, it is no wiſe inferiour, the wines, and other fruits produced on the borders of both, being equal in their goodneſs and other eſſential qualities.

Having proved his firſt propoſition incontrovertibly, he proceeds, in proof of the ſecond, to recommend an eaſy experiment, which is in

every farmer's power to make; and that is, to give to one half of his cattle ſalt, and to the other half none. By this ſimple trial, he ſays, in leſs than a month the difference will be diſcernible.—The cattle to whom the ſalt is given will ſhew it in their looks, in the ſleekneſs of their coats, in their growth, and in their ſtrength and fitneſs for labour. He adds, that, with little more than half their uſual food, all theſe effects will be produced.

To eſtabliſh his third propoſition, he appeals to the practice about Arles, where the cattle have as much ſalt as they will eat; and none are ſo healthy, nor thrive ſo faſt, as thoſe who eat moſt of it.

From the above obſervations, ſo judiciouſly handled, there cannot remain a doubt concerning the good effects of ſalt in the feeding and fattening of cattle; but it is much to be regretted (ſays a quoter of theſe memoirs), that the writer is totally ſilent with reſpect to the method of giving ſalt to the labouring cattle. He has, indeed, informed his readers, that, in eight days, his flock of three hundred Sheep ate fifteen pounds of ſalt, being one pound to every ſcore; and it ſhould ſeem, by his manner of expreſſing himſelf, that he gave them the whole quantity

in

in one day, as he cautions the farmer againſt ſuffering his Sheep to drink on the day the ſalt is adminiſtered; appriſing him, at the ſame time, how much it ſharpens their appetite: and, farther, that he had ſeen them not only browſe upon ſtubs after eating the ſalt, but even gnaw pieces of wood of a ſurpriſing thickneſs.

Having thus endeavoured to enforce the neceſſity of increaſing the number, and improving the breed of Sheep, and treated of the proper management of wool, and, in ſhort, of every thing that concerns the welfare of this uſeful animal, I ſhall next take a ſlight view of the Linen Manufacture, and attempt to prove that it is not an object of national purſuit.—After this, I ſhall lay down a comparative view of the advantages and diſadvantages that attend the proſecution of both the Woolen and Linen Manufactures, and clearly demonſtrate, that the Linen is not the ſtaple of Scotland; and that, if ever ſhe is to emerge from her preſent poverty and obſcurity to future opulence and glory, it will be in proportion to that degree of attention that is given to the Woolen branch, in conjunction with that of the Fiſheries.

CHAP. II.

SECT. I.

Of the Linen Manufacture.

WHATEVER material is the natural production of any country, it may be reaſonably concluded, that the cultivation, and manufacturing of it into ſuch commodities as the inhabitants cannot do without, and may export the overplus to foreign nations to advantage, is preferable to any other material not poſſeſſed of theſe adventitious circumſtances.

It is for this reaſon I have been firmly convinced, ever ſince I was capable of forming any rational ideas of trade, that my countrymen have all along been purſuing a phantom in the Linen Manufacture, while they have totally diſregarded, or very much overlooked, that real and ſubſtantial ſource of trade derivable from that of the *Woolen;* and which ought to be purſued

ſued with unremitting ardour, as an object worthy of our moſt ſerious attention.

I am truly ſenſible of the danger of combating an inveterate cuſtom; and how much it lays me open to cenſure and criticiſm: yet, hazardous as it may be, if that cuſtom, from the experience of ages, can be proved prejudicial to the intereſts of the community in general, I have too high an opinion of the good ſenſe and underſtanding of my countrymen to imagine, that the efforts of an individual to particularize the attendant evils, and point out the advantages that might be derived by adopting a different conduct, will either ſubject me to open reproach, or endanger me to private animadverſion.

Flattered with theſe hopes, and conſcious of the great ſuperiority the Woolen Manufacture has over the Linen, I ſhall endeavour, in this chapter, to lay before my reader the many great advantages attending the former, and the almoſt inſurmountable difficulties that accompany the latter.

To begin then with flax, as being the principal article in this branch: If the manufacturer wiſhes to have ſuch as is fit for his purpoſe, he muſt commiſſion it from ſome port in the Baltic,

or from Holland: Pearl and pot aſhes, equally neceſſary, muſt alſo be got from abroad. Now, for the ſatisfaction of thoſe who may be unacquainted with mercantile affairs, and in ſupport of my propoſition, it is neceſſary I ſhould lay before you a ſtate of the charges attending the importation of a cargo of theſe articles; to wit,

I. *Flax.*

	Per Cent.
For a cargo of flax, ſhipped at St Peterſburgh, Riga, or any other port in the Baltic, commiſſion 2 *per cent.*—port charges, ſhipping charges and Sound dues, $2\frac{1}{2}$ *per cent.*	$4\frac{1}{2}$
Inſurance, at a medium, through the ſeaſon, $3\frac{1}{2}$ *per cent.*—freight to Leith $1\frac{1}{2}$ *per cent.* - -	5
Loſs by dry damage, at a medium, including ſhort, uſeleſs flax, packed ſo that it cannot be diſcovered, -	5
Sea-damage, which the under-writers are not liable to pay, (for they do not pay under 5), -	$3\frac{1}{2}$
Shore dues at Leith, porterage, cuſtom-houſe charges, $\frac{1}{2}$ *per cent.*—warehouſe rent, and weigh-houſe dues, $\frac{1}{4}$ *per cent.* - -	$\frac{3}{4}$
In all	$18\frac{3}{4}$

II. *Pearl and Pot Aſhes.*

	Per Cent.
For a cargo of pearl and pot aſhes, commiſſion 2 *per cent.*—port charges, ſhipping, and Sound dues, 2½ *per cent.*	4½
Inſurance, at an average, 3½ *per cent.* —freight to Leith, 2 *per cent.*	5½
Loſs by ſea-damage, which the underwriters do not pay,	4
Duties,	25
Porterage, cartage, ſhore-dues, cooperage, cuſtom-houſe fees, weigh-houſe, &c.	1½
In all	40½

The ſame charges attend weed and wood aſhes, only they are leſs liable to damage at ſea; nor are the duties near ſo high as on pot and pearl aſhes: but it equally affects the value, as they are much cheaper in price. The flax imported from Holland, though not loaded with ſuch heavy charges and freight as that from the Baltic, amounts to between ſix and ſeven *per cent.* as appears from the following calculation. But it ſhould likewiſe be remembered that

a very

a very inconſiderable part of what is uſed in Scotland is imported from Holland.

The Charges on Flax from Holland are,

	Per Cent.
Commiſſion 2 *per cent.*—ſhipping charges and port charges, 1 ½ *per cent.*	3 ½
Inſurance through the ſeaſon, 1 ¼ *per cent.*—freight to Leith ¼ *per cent.*	1 ½
Loſs that the underwriters do not pay, 1 *per cent.*—porterage, cartage, ſhore dues, ¼ *per cent.*—cuſtom-houſe fees, and petty charges, ⅛ *per cent.*	1 ⅜
In all	6 ¾

From the above accounts, which no one can ſay are exaggerated in the ſmalleſt degree, it is plain, that for every material imported for the uſe of the Linen Manufacture, flax only excepted, no leſs a duty than * 25l. *per cent.* upon

* *Let it be particularly remembered, that in the foregoing accounts of coſt and charges on flax, pearl and pot aſhes, the* freight *and* inſurance *are ſtated at the rates in profound peace; In time of war, as at preſent, 15 per cent. more may be added to theſe articles without the leaſt exaggeration.*

on its real value is paid by the importer; and, though it may be ſaid no tax is laid on the flax itſelf, conſequently ſufficient encouragement is offered to the Linen Manufacturers for proſecuting this deluding branch; yet I ſhould be glad to know if they are of opinion that their correſpondents, from whom they purchaſe this article, furniſh them with ſuch as they manufacture themſelves? I am poſitive they do not. The flax made uſe of in Sileſia is of a far ſuperiour quality to any I ever ſaw imported into Scotland; and I am fully perſuaded, that it is good ſound policy, nay even the duty of every nation, to with-hold from foreigners any article, the exportation of which may affect their intereſt; and that, conformable to the great fundamental law of nature and nations, no country whatever ought, nor will they attempt, to export a commodity to foreigners, who are uſing their utmoſt endeavours to ſupplant them in that very branch of trade, of which that particular commodity is a primary ſource.

Such being really the caſe, it will be anſwered, we can cultivate flax ourſelves; and for which end the Board of Truſtees offer us every encouragement.—I am ſorry to ſay this laſt part of the propoſition is too true. The Truſtees have given their countenance and ſupport to-

wards

wards propagating and naturalizing this foreign plant, to a height, which I hope more mature conſideration will incline them to lower. This may be a mean of preventing many of our farmers from occupying their beſt corn-land on a crop of flax, that, at beſt, is exceedingly precarious, and to which they are often prompted by the premiums holden forth to them, as a reward for their enterpriſing ſpirit.

With regard to the other part of the propoſition, The poſſibility of cultivating flax ourſelves, that is, to any good purpoſe, I will venture to ſay is an attempt that carries with it very little probability of ſucceſs. Ireland, indeed, has both ſoil and climate pretty favourable to the growth of flax; nay, much more ſo than any other iſland I know of; experience proving that it can be raiſed there with tolerable advantage: But Scotland is by no means calculated for it. The reaſon is plain;—in moſt, if not in all iſlands, the weather is very changeable. The ſnow that falls in Scotland never lies long enough to keep the froſt out of the ground, and the heat of the ſpring not being ſufficient to warm the land, ſo as to render it fit for the reception of the ſeed, vegetation, of conſequence, is retarded, nay often intirely ſtopped. To ſupport this aſſertion, I beg leave to inform my

readers,

readers, that being three years ago on a journey to the north, in order to viſit a gentleman whoſe aſſiduity in promoting the manufactures of his country is well known, and whoſe memory will be revered by after-ages; I ſaw, in perhaps the fineſt country in Scotland for the purpoſe, ſeveral rich fields which had been ploughed down and ſown with flax-ſeed, with great labour and expence; but which, unfortunately for the deluded farmer, yielded no crop whatever. If the preceding ſpring had been intolerably cold, which, by the bye, many may remember to have been a warm, and promiſing one; and if the land had not been in good condition, and proper for its culture, theſe circumſtances might have been pleaded as reaſons for the failure; whereas, the contrary being the caſe, the event proves, beyond the ſhadow of a doubt, that let our efforts be exerted to the utmoſt, we can never conquer impoſſibilities; and that, on account of the unfriendlineſs of our ſoil, and the inhoſpitality of our climate, this valuable ſeed can never be reared here to a ſtate of mediocrity, much leſs to that of perfection.

In the courſe of the above journey, my attention was taken up in viewing the flax I ſaw growing between Perth and Aberdeen; and I candidly declare, that I would not have accepted

ted of the whole as a preſent, to be obliged to dreſs and manufacture it. The thing called flax, of the growth of this country, does not deſerve the name; nor will it be conſidered as ſuch by any who has ſeen it grow in its natural clime. It is in the eaſtern countries of Europe where the beſt flax is produced: there the froſt never pierced the ground ſince the creation, nor ever will; for, about the middle of October, the ſnow falls, perhaps, from two to three feet thick, and often more. Immediately after, the froſt ſets in, and freezes the ſnow ſo firm, that carriages go over it, the whole winter, without ſo much as breaking the cruſt. Towards the middle of March, the heat of the ſun diſſolves the ſnow, and vegetation immediately commences, and that in a more rapid manner than can poſſibly be conceived by thoſe who have never ſeen the phænomenon. The ground (richly manured by the ſnow), being rendered like a hot-bed, forces vegetation ſo faſt, that flax-ſeed and barley are ready for reaping eight weeks after they are ſown. And although rain ſeldom falls all the time the flax is growing, yet it ſhould be obſerved, that the ground ſtands in no need of much moiſture, as the plant covers it in a ſhort time, and ſkreens the earth from the ſcorching beams of the ſun; nay, it ſometimes happens that, in theſe climates, not a

cloud

cloud is to be ſeen for many weeks together; nothing but conſtant ſun-ſhine, and pleaſant ſummer weather.

The above are natural advantages, concurring to render the growth of flax well worthy of the attention of the inhabitants; nor will it be in the power of any nation to rival them in its culture, ſo long as day and night, ſummer and winter, ſhall continue their natural ſucceſſion, invariably obſerved ſince the creation of the univerſe.—But it is in vain to expect the ſame advantages from lands ſituated in the middle of the ocean, poſſeſſed of ſoil and climate diametrically oppoſite to the genius of the ſeed; and, therefore, I would fain flatter myſelf with the hope that the Board of Truſtees, ſeeing the uncertainty that attends the raiſing of flax, will leſſen the ſums, and curtail the number of their premiums, and tranſfer the ſame towards encouraging the culture of Wool, and bringing the various branches of the Woolen Manufacture to greater degrees of perfection. This mode of conduct would prove very beneficial to the country; whereas, the other often lands us in great loſſes, excluſive of the encouragement given by the Board, and, in its more than ordinary ſucceſs, can never be attended with national advantage.

As a farther corroborating proof that flax is an exotic, and the propagation of it a fruitleſs, unprofitable purſuit, let it be remembered, that lint-ſeed totally degenerates in two or three years. That which is raiſed this year cannot be ſown with any hopes of its producing a tolerable crop for the next; and if it be continued three years, (though you were to change the ſoil to any place within Scotland), it will ſcarcely come up above the ground. No one will doubt the truth of this aſſertion, when he reflects on the number and frequency of proceſſes that come before the Court of Seſſion, between the Dutch merchants and thoſe of our own country, for the price of flax-ſeed furniſhed by the former to the latter, whoſe defences for non-payment are ſubſtantially as follow: "That having ſold the cargo to different farmers in the country, allowed them the uſual time of credit; that, after their labouring the ground, and ſowing it with this ſeed, no crop whatever enſued; and, as the farmers abſolutely refuſed to pay them the ſtipulated price, it would be extremely hard were they to be found liable to the Dutch merchant for a cargo, from the ſale of which they never drew a ſingle ſhilling."— I will not take upon me to ſay how far this defence would be valid againſt the Dutch merchant; but the circumſtance of the flax never

appearing

appearing above the ground, undoubtedly afforded the farmer a good reaſon for with-holding payment from the Scots merchant, as he was not only deprived of the expected crop, but alſo loſt his labour, and the produce of the ground for that year.

When ſuch are the uncertainties that attend the raiſing of flax in this country,—when daily experience evinces that it is a hazardous trade, we ought not to heſitate a moment to reſolve to give up the practice, or at leaſt to confine it within certain bounds. The moſt ſkilful cannot tell, by looking at the ſeed, whether it be good, or poſſeſſed of vegetative principles; for, while it carries the appearance of having quickening powers, it may be dead and corrupt, without the influence of vegetation.—This was expreſsly the caſe in one of the proceſſes above alluded to. A proof was taken as to the quality of the ſeed when ſhipped from Holland; and ſome, ſkilful in theſe matters, gave evidence that it had every appearance of good ſeed at that time. It was alſo proved to have received no damage at ſea; and ſeveral perſons, deemed competent judges, paſſed many encomiums on it, after it came into the Scots merchant's poſſeſſion: yet this ſeed, ſold to different farmers in the county of Moray, and by them ſown and managed with due care

attention, never appeared above the ſurface, although this diſtrict is known to contain as good and as rich land as any in Scotland.

I have been the more particular on this ſubject, as I ſincerely wiſh to convince the country gentlemen and farmers of the folly of occupying their valuable grounds with an article ſo extremely hazardous and uncertain. Nature never intended the Linen Manufacture as the ſtaple for Scotland: for lint, its primary article, notwithſtanding the uncommon attention paid to it, the laws enacted in its favour, and the premiums granted for its culture, the moſt favourable ſeaſon never produced any equal to foreign growth; neither has the moſt luxuriant crop indemnified, much leſs rewarded, the induſtrious labourer. Our being obliged to be annually ſupplied with ſeed by our neighbours the Dutch, or from the Baltic, clearly demonſtrates that it is not congenial to the ſoil, and, conſequently, can never be raiſed to perfection. It is on this account that foreigners can ſupply this country with both flax and linen cheaper, and of a better quality than we can rear and manufacture it ourſelves, eſpecially linen of the finer kind.

I would not, however, have it underſtood as if I meant to perſuade thoſe who are already

engaged

engaged in the linen manufacture to give it up altogether, or to deter others from ever embarking in it: I would have the *former* to circumſcribe it by degrees, the *latter* to enter into it cautiouſly, and both to proſecute the woolen vigorouſly. Linens, for our own conſumption, ought certainly to be made at home, and even ſome for our neighbours, the Engliſh; but theſe ſhould be of a coarſe quality, and manufactured with foreign flax. The Scots manufacturer cannot earn a ſubſiſtence by working fine linen, and ſelling it in the Engliſh market; neither ought we to flatter ourſelves of being capable to make Linen that will bring a proper profit by exporting it abroad, our own plantations not excepted.

This would be an abſurd idea, while Germany, and the eaſtern countries, continue to rival us in that branch; for it is an undeniable fact, they are, and probably ever will be, able to underſell us in price and quality, at leaſt 30 *per cent.* Who then can imagine that the Americans, or Weſt Indians, will purchaſe this article from us, when they can be ſupplied with German Linens at the Dutch and Daniſh free-ports in the Weſt-Indies upon much better terms? Where the temptation is ſo great, the

event muſt happen, in ſpite of every endeavour to reſtrict them.

Experience might have convinced us, long before this time, that the Linen Manufacture is rather a loſing than a lucrative branch, eſpecially the finer ſorts of it, which we have been long accuſtomed to ſend to the London and foreign markets. Nay, I dare venture to affirm, that the manufacturers of fine Linen have, upon an average, loſt four-pence *per* yard for every yard thus exported; ſo that, as many yards as have been ſent abroad, ſo many four-pences have been loſt by this *Staple Commodity*, beſides the value of the materials paid to foreigners. Surely ſuch a trade, if it was meant to give employment to the poor, was the very worſt that could be deviſed: For, while the maſters were ſuch great loſers by the buſineſs, the journeymen were ſure to ſuffer proportionally; and, inſtead of receiving wages to enable them to live comfortably, the moſt rigorous parſimony was neceſſary to preſerve them from abſolute ſtarving.

The Britiſh Linen Company embarked in this branch, and that too with the beſt appearance of ſucceſs; for they received much greater ſupport than ever was given to any infant manufacture

nufacture undertaken in this country. Their directors were judicious and intelligent; their ſervants were honeſt and (ſome of them) alert; witneſs Mr W. T—d; yet with all theſe advantageous circumſtances, it has failed of ſucceſs. I myſelf have furniſhed the Company, for ſeveral ſeaſons, with ſhips to bring home their flax. —My opinion being often aſked by ſome gentlemen, deeply concerned in the trade, I was always uniform and explicit, that it could not ſupport itſelf. It has impoveriſhed this nation to the laſt degree, by draining it of caſh. The money that has been remitted (all in ſpecie) in my time, to pay for flax and flax-ſeed, as well as for pot, pearl, weed and wood aſhes, &c. to Holland and Ruſſia, is ſo immenſe, that it almoſt exceeds the bounds of credibility. I know, to a trifle, the very ſum that has been remitted to Amſterdam, Rotterdam, and Hamburgh, for the above articles for twenty years paſt; but it is ſo very enormous, that I had rather wave mentioning it, leſt its veracity ſhould be called in queſtion: ſuffice it to ſay, that it might well ſtagger the belief of the moſt credulous.

Certain it is, that this trade has carried more money out of Scotland, in my time, than all our foreign trade put together; for the French and Spaniards take our goods in exchange for their commodities,

commodities; but thoſe who ſupply us with flax, flax-ſeed, &c. take nothing but ready money. It is to this cauſe, therefore, that I attribute the great ſcarcity of caſh, and of the London and Dutch exchange having been ſo much againſt us. And my reaſon for thinking ſo is, that there having been leſs of theſe articles imported hither within theſe five years paſt, the exchange has become more moderate, drawing nearer to a par in proportion as the importation of theſe articles decreaſes.

My knowledge of what put the political ſpinning-wheels in motion is not of yeſterday. Archibald Earl of Iſlay, afterwards Duke of Argyle, who long held the reins of the political ſyſtem of this country, gave birth to this Utopian ſcheme, in which he was aſſiſted by *able* men, moſt firmly attached to his inclinations. Far be it from me to derogate from the merit, or decry the memory of that Nobleman. He was undoubtedly a great man, and an ornament to this country; but the doctrine then was, *Keep the people poor, and they will be dependent*; nor could a more proper device be thought of than employing them in the Linen branch. This I have frequently taken the liberty of mentioning to ſome of the leading men of thoſe days, with whom I had the honour of being intimately acquainted;

quainted; but words or writing, at that period, availed nothing. The anſwer to every thing offered on ſo unpopular a ſubject was, We muſt not diſoblige the Engliſh: the Woolen is their great ſtaple, with which we muſt by no means interfere, otherwiſe we ſhall excite their indignation, and our bounties and premiums will be recalled.

Such was the patriotic creed held forth at that time, which, however, required the aid of other deluſions to create digeſtion. For this purpoſe, the counties and burghs were ſupplied with abundance of the Britiſh Linen Company's notes, which they were taught to believe was equivalent to caſh. Large quantities of flax, flax-ſeed, reels, wheels, flax-mills, and *wind-mills*, were likewiſe poured in among them, in order to promote and carry on a trade that never did, nor never can ſupport itſelf, if credit can be given to forty years experience. Bleachfields were formed, and premiums given to thoſe who could raiſe the moſt flax, &c. Provoſt ſuch an one, with the aſſiſtance of the Dean of Guild, Conveener, and Deacon of crafts, were appointed to have the direction of the diſtrict adjoining to their reſpective burghs. Feaſts were given to theſe gentry, and flax, &c. put into their hands. Bounties, premiums, and what not, were found-

ed in their ears. Bleachfields were encouraged, though the uſe of lime and pigeons' dung was forbidden. Something in their ſtead was neceſſary to be ſubſtituted, which might *force* the Linen to a ſudden whiteneſs, and yet be leſs expenſive than ſoap or any thing lixivial. Spirit of vitriol, or ſome ſuch pernicious drug, was inſtituted to enable them to bleach cheap. One devil was introduced to drive out another; but ſoftened with the name of *oil* of vitriol, large quantities of which are injudiciouſly uſed by many Bleachers, whereby the oil is extracted out of the yarn, and the cloth burnt. This it is that has had great effect in ruining the character of Linens made in this country; and many induſtrious houſewives, who make for their own families, feel moſt ſeverely the bad effects of this new-invented method of whitening cloth. Chymiſts indeed ſay, that it may be applied in ſmall quantities by ſkilful perſons; ſo may poiſon, or aqua fortis, to the human body; the operation in both is ſlow but ſure. If cloth be bleached with ſoap and aſhes, it will laſt double the time of that which is forced white by a ſpirit that will corrode iron.

Theſe, and many other circumſtances which might be enumerated, are the diſadvantages that attend a too extenſive proſecution of the

Linen

Linen trade; or, in other words, making it the eſtabliſhed manufacture of this country. The fine white Linen, with which we have hitherto attempted to furniſh the London and foreign markets, ought to be totally neglected, for reaſons heretofore mentioned; while every encouragement ſhould be given to the coarſer kind, the thin, low priced Linen, fabricated in the counties of Fife, Perth, Angus, &c.; alſo to that ſpecies of it carried on at Paiſley and its environs; and particularly to the Linen yarn manufactured in the counties of Aberdeen, Banff, &c. as it meets with a ready ſale at Nottingham, and other manufacturing towns in England, and has brought a great deal of ready caſh into the country. The above are articles in the Linen Manufacture to which our attention ſhould be principally directed, and not to the fine *white Linen;* eſpecially as we are deprived of the means of making it equal to that manufactured in other countries, who enjoy every natural advantage.

The Paiſley branch requires but little flax to carry it on; and the other kinds of Linen, recommended as only worthy of the attention of my countrymen, being moſt profitable to the manufacturer, may be fabricated with our own flax. This being the caſe, and ſeeing the above

articles

articles are purchaſed with avidity, both at home and abroad, it may not be altogether improper, as many people are in the practice of raiſing flax, to preſent the public with an account of the ſoil beſt adapted to its propagation, together with what other remarks may be uſeful as to its culture and management.

It appears then, from experience, that lint ſhould be ſown upon a deep earthy ſoil, or upon any ſoil that is tolerably good lying level, and not being too moiſt. The ground, previous to its being ſown, ſhould be *well reduced*, by frequent ploughings and harrowings, giving it at leaſt three ſingle harrowings *before* and *after* ſowing.—Soils inclining to moſs or wet clay,—that are *four* or overſpread with ruſhes, are unfavourable to the growth of lint.—Under the former circumſtances, and from the beſt accounts, it appears then, that an acre of land requires to be ſown with about eight pecks of lintſeed; having the ground firſt well cleared of annual and perennial weeds and quicks; and taking care, when half-grown, to let it be well wed, but always when dry.—It ought never to be pulled till the ſtalks begin to grow yellow, and the leaves to fall;—till the ſeed, appearing to be well nouriſhed, has attained a proper ſize and colour. The *beets*, when pulling, ſhould be

from

from eighteen to twenty-four inches circumference;—ſtooked up till dry, then ſtacked in the barn-yard like corn.—Proper care muſt be taken, when plucking it, to ſeparate the different qualities of the lint from each other; that is, the large and coarſe ſtalks ſhould be plucked firſt; the ſtalks of a middling ſize and quality next; and the ſmalleſt or fineſt ſtalks the laſt. In the ſpring it ſhould be thraſhed in a barn, and afterwards water-milled, when it may be ſold in ſtones or quantities.

A judicious farmer, diſcuſſing the above ſubject, ſays, "I have ſeen lint-ſeed ſown on old *ley* that had been limed after the firſt crop, and on new ground that had been taken in with lime after the third crop; but in both theſe caſes, with very inconſiderable advantage.—If the ſoil be light, it may be ſown after the turnip;—if rich, after the barley crop;—if poor, or overrun with weeds, after a ſummer fallow.—Theſe, he adds, are the moſt eligible caſes for adopting a crop of lint." The moſt advantageous produce, however, that can be expected in this climate is, from fifteen to twenty-five ſtone, Engliſh weight, and one and a half, or two hogſheads of ſeed *per acre;* the firſt of which, at an average, may be worth about eight ſhillings per ſtone, and the ſeed three guineas per hogſhead,

reckoning ten ſtone of lint to a hogſhead. It were almoſt needleſs, however, to obſerve, that for one crop that produces as above, twenty do not pay the expences incurred in preparing the ground, rearing and dreſſing it; the weeding, pulling, and other manufacturing, amounting to about three pounds *per acre*, excluſive of the ploughing.

I have dwelt thus long on the article of the Linen Manufacture, as ſeveral perſons, for reaſons I cannot conceive, have imagined, adverſe to my wiſhes, that I recommended it ſhould be given up altogether. As a proof of the contrary, I need only mention, that ſome years ago, I prevailed on one of the greateſt men of the country, Mr Oſwald of Dunnikier, to apply to adminiſtration (though without ſucceſs) for having the duties taken off hemp, and all the materials imported for the Linen branch. My great objection to it, therefore, was (and ſtill is), that we were puſhing it too far, while the Woolen Manufacture, the materials of which are almoſt all duty free, was, in a manner, totally neglected.

CHAP.

CHAP. II.

SECT. II.

Of the ſuperiour Advantages the Woolen Manufacture has over the Linen.

THE wealth and ſtrength of a nation is proportioned to its natural advantages, to the number, ſkill, and induſtry of its inhabitants, and to the extent and profits of its trade.—Now, if population be one of the great ſources of a nation's wealth, it becomes an object of inquiry, what circumſtances are moſt conducive, and which of the branches in queſtion is beſt calculated to promote this end. The former, by inquiry, will be found to originate from ſuch inſtitutions as ſecure property, prevent oppreſſion, encourage the ſettlement of families, and facilitate the rearing of children.—And with reſpect to the latter, That the Woolen Manufacture is better adapted to encourage population, and pro-

mote induſtry, than the *Linen*, and has, beſides, the pre-eminence in many other reſpects, will appear from the following compariſon drawn between both with the utmoſt candour and impartiality.

It has been proved, by fatal experience to this country, that the Linen Manufacture cannot ſupport itſelf by nature. It is an exotic that is not able to ſtand without ſupport, nor walk without crutches. All attempts to ſupport it by art are vain and unprofitable: Whereas, the gain or profit ariſing from the Woolen Manufacture, which enjoys the natural advantages of good climate, fertile ſoil, and uſeful materials, is certain and durable, if not cruſhed in the bud by thoſe very perſons whoſe intereſt is concerned in holding it up.

The Linen Manufacture is exceedingly precarious, inaſmuch as three fourths of its original materials, upon an average, are of foreign growth; while almoſt every article for that of the Woolen is to be found at home: The materials for the former are burdened, on importation, with enormous cuſtoms; while the original ones for the latter, from the fine *cochineal* to the loweſt priced *madder*, are imported duty free.

The

The individual and national advantage the Woolen Manufacture has over the Linen, will be rendered conſpicuous from the following point of view. A weaver of Linen cloth cannot earn half the wages that a Woolen weaver can; none therefore would chuſe to be the *former*, if they had an opportunity of becoming the *latter*; and conſequently, if proper attention were paid to the Woolen Manufacture, when the fabricators of Linen ſhall with difficulty find workmen to weave their cloth, thoſe of Woolen will be amply ſupplied, as the profits of both maſter and ſervant are reciprocally greater in the Woolen than thoſe in the Linen branch. The induſtrious, in the various kinds of the Woolen branch, can live comfortably, and clothe themſelves decently; thoſe in the Linen never did, nor never can. Plenty and happineſs appear on the countenance of the one, poverty and miſery on that of the other. But what entitles the Woolen Manufacture to peculiar favour in this country, where ſtocks are ſmall and credit low, is, that Woolen goods can, from the time of clipping or ſhearing the Wool, be brought into market in ſix or eight weeks, ſome branches of it in three; whereas, the ſooneſt one can bring in Linen, from the date of reaping the flax, is fifteen or eighteen months. The latter conſumes much money on a commodity often as unſaleable as it is unprofit-

able; the former requires a leſs proportional capital, its wares marketable and advantageous, and converted into caſh five or ſix times in a year.

The unparalleled ſuperiority the Woolen Manufacture has over the Linen, and the great advantage it may be of to this nation, is evident, inaſmuch as it affords employment and bread to the young and old of both ſexes. Now it is natural to ſuppoſe, that the induſtrious labourer will always flee to that buſineſs by which he can acquire moſt money; which enables him to live more comfortably, and provide againſt old age, ſickneſs, or diſeaſe, for the ſame reaſons as a merchant, finding an extraordinary profit ariſing from a certain article of his trade, will exert his utmoſt to extend the conſumpt of that particular commodity. If ſuch wages, and ſuitable encouragement, be given to ſkilful workmen, as empower them, by frugality, to lay up againſt the adventitious accidents of life, they will be more inclined to anſwer the purpoſes of creation, which are, to *increaſe* and *multiply*. The Woolen Manufacture is peculiarly favourable in promoting matrimony, and conſequently population; as, beſides the advantages before-mentioned, children, from five years of age may begin to be uſeful, and are even employed in the different

different branches of it, being ſingularly adapted to their infant ſtate. It is the fear of want that deters moſt of our labouring people from marrying. Indeed, no man in his ſenſes would attempt to marry, and be threatened with the clamours of children crying for bread, when the wages he earns are barely ſufficient to maintain himſelf.—Under this predicament ſtand the poor Linen Manufacturers; whoſe caſe, independent of compaſſion, or the real welfare of one's country, merits the particular attention of the landed men, for the ſake of ſecuring their own rents.

Before I conclude this ſection, it may be neceſſary to obſerve, that the Woolen Manufacture does not, like many other profeſſions, require a great exertion of ſtrength. The young and old can be employed in ſuch parts of it as are beſt adapted to their years, leaving the hard labour to the more robuſt, and each in their reſpective offices abſolutely uſeful. Now, as a nation's wealth is not to be computed from the temporary and partial ſtate of its coffers, repoſitories of corn, or fullneſs of ware-houſes; but from the fruitfulneſs of its land, and from the numbers, frugality, induſtry, and ſkill of its inhabitants; ſo in this point of view, the Woolen Manufacture,

Manufacture, which is profitable to all concerned in it, which incites and gives encouragement to induſtry, and which rewards the ſkilful,—tends to multiply abundantly the people, who, in proportion to their induſtry and virtue, are ſources of the wealth and ſtrength of a nation.

CHAP.

CHAP. III.

SECT. I.

Of the Woolen Manufacture.

BEFORE we enter upon this ſubject, it may not be amiſs to draw a comparative view of the effects of idleneſs and induſtry.

Idleneſs is the bane of ſociety, the ſpring of vice and irregularities, and the harbinger of public calamities. It makes us always dependent on our neighbours for commodities we cannot want, and for which we are unable to pay. Its offspring is public poverty; and the greater our opportunity of ſupplying ourſelves, and the more ample our rights and liberties are, the more galling is the reflection, that by neglecting to profit by the means that would keep us independent, we have entailed poverty and thraldom on ourſelves and poſterity.

It is not long ſince Scotland felt the full weight of theſe calamitous circumſtances. We have long aped our neighbours' follies, and neglected to imitate their virtues; and, being ignorant or careleſs of our own reſources, we fooliſhly confided in the aid of others, and contentedly jogged on in dependence and obſcurity; nay, ſo far from wiſhing for an internal ſupply, we ſlighted the opportunities afforded us by nature, and furniſhed ourſelves with articles of foreign fabric, at the expence of our indolence and inactivity.

Induſtry produces oppoſite effects, and ſhould therefore be promoted by all poſſible methods; by wiſe regulations of commerce, as well internal as foreign; by the vigilance of magiſtrates to ſuppreſs ſloth, vice, and immorality; by a due attention to the indigent and feeble, that none periſh for want, when there is a ſufficiency for all; and by incitements to the love of virtue, and the practice of religion. Theſe, among many other neceſſary regulations, are principally to be attended to, to excite a general ſpirit of induſtry, which, when directed to proper objects, is the ſource of opulence; as idleneſs, or labour miſapplied, is the ruin of a country. When the firſt prevails, the inhabitants live decently and comfortably; but when the

the laſt is predominant, they are poor and miſerable.

Of all the labours which can be deviſed to exerciſe the hand of the ſkilful artiſt, or to give conſtant exerciſe to the willing labourer, none can be more uſeful or beneficial than the *Woolen Manufacture;* which, if properly extended, and rightly managed, will afford ſuch an ocean of wealth, ſuch advantages in trade, and ſuch employment for the poor, as can never be derived from any other branch whatever, except that of the *Fiſhing:* Nor could kind nature have ſhewn herſelf in any thing more favourable or generous to Scotland, than by enriching it with an inexhauſtible fund of means and materials for the accompliſhment of *both.*

The Divine Providence has manifeſted itſelf in beſtowing upon different countries different productions, marking their mutual dependence upon each other for the various products of the earth. This Iſland, however, on a comparative view, may juſtly be ſaid to have the pre-eminence over many others in this reſpect, as there are few of the real neceſſaries of life which kind nature has not granted us more immediately within ourſelves.—But, in no one inſtance is ſhe more conſpicuous than in the quantity and

qualities

quality of Sheep paſture, and the other various requiſitions peculiarly adapted for proſecuting the different branches of the Woolen Manufacture.

It were needleſs to recapitulate all the advantages which Scotland has over England in this reſpect; ſuffice it to mention ſome of the principal. The *Wool*, which we can increaſe to almoſt any quantity we pleaſe; or, if it were not poſſible to improve our Sheep, or acquire a breed that would produce wool fine enough for ſome particular purpoſes, we can commiſſion and receive ſuch from Spain, upon as eaſy terms as our neighbours. It ſhould, however, be remembered, that our Sheep bear more Wool than any Sheep in Europe, or any other country; many of them produce as fine Wool, and their number is daily increaſing. The Sheep of Spain bear but two kinds of Wool, very *fine*, and very *coarſe*; and but a ſmall quantity of each.—One of our Sheep's fleeces will, at a medium, weigh three of theirs; and while ours are fit for cloth from one ſhilling and ſixpence to thirteen ſhillings *per* yard, the fine Spaniſh Wool is only fit to make cloth at ſixteen ſhillings, and the coarſe hardly at one ſhilling *per* yard.

Firing,

Firing, too, an article of no inconſiderable moment (eſpecially in ſome branches of the Woolen Manufacture), and with which this country is amply ſupplied, can be had upon better terms than in England: Beſides, the infinite number of *rills* of water we have, ſo neceſſary for proſecuting this trade, give us an advantage over every other country: But above all, the value of *labour* in Scotland, being much lower than in our ſiſter kingdom, proves that it is better calculated for the ſeat of manufactures in general, and more particularly for thoſe with which nature has furniſhed the induſtrious with materials.

Land-Carriage is the laſt article I ſhall mention, in which Scotland has a conſiderable advantage over England: For, no one will attempt to deny, that very large quantities of Wool are ſent yearly from certain counties in Scotland, one hundred and fifty miles by land-carriage into England, to be ſorted and combed there. When combed, it is returned hither to be ſpun; next ſent back again to England, by the ſame mode of conveyance, to be woven into cloth; and, laſtly, returned hither a third time for ſale, to that very country where the Wool grew! Now, if it was nothing but the ſaving of the land-carriage backwards and for-

wards ſix hundred miles, independent of every other conſideration, cloth ſpun and woven in Scotland may be ſold conſiderably cheaper than that fabricated in England.

The above advantages, independent of many others hereafter to be mentioned, are ſufficient of themſelves to encourage us in the purſuit of, and even to inſure ſucceſs in, the Woolen Manufacture. Let us then, my countrymen, ſet about it in good earneſt, and not liſten to the deluſive arguments of the narrow-minded, or ſelf-intereſted, who would inſinuate that if we interfere too much in the ſtaple of England, her people will be offended, and refuſe to take thoſe articles from us, with which we have been accuſtomed to ſupply them. This, I am certain, will never be the caſe: for, however contracted our notions of trade may be, the Engliſh, who are endowed with a more liberal way of thinking, will never refuſe to traffick with any country, becauſe its inhabitants may attempt to fabricate themſelves what they formerly commiſſioned from them; nay, even tho' they were to carry their endeavours ſo far as to emulate them in a particular branch. England, inſtead of being jealous of our interfering in her favourite *Manufacture*, and increaſing our *wealth* and *numbers*, will certainly reap the

benefit

benefit of *both*: For, ſuppoſing there were at this inſtant five hundred thouſand Woolen weavers in Scotland, the cuſtoms, the exciſes, the naval and military ſtrength of England would be proportionably increaſed.

But if we view this matter a little cloſer, we ſhall find the intereſt of both equally concerned; and that, let us proſecute it to what extent we pleaſe, the Engliſh trade cannot ſuffer in the ſmalleſt degree. On the contrary, by a friendly junction of the two kingdoms in the Woolen branch, we could not fail to drive the French, Dutch, and indeed every other nation, entirely out of the foreign markets, which would be an acquiſition of the greateſt importance to this commercial nation; while Ireland, by the ſame reaſon, might enjoy unrivalled the Linen Manufacture, which is properly her ſtaple. This would be a mean of encouraging the Iriſh (dutiful and obedient children, who deſerve to be cheriſhed) to ſend all their Wool to Britain; whereas, it is well known the greateſt part of it is ſmuggled to France or Holland, where it is manufactured into cloth, and ſold at an underrate in foreign markets, to the great prejudice of this nation.

It is an undeniable fact, that the Wool of France and Holland is of ſuch a nature and quality, that it cannot be wrought into cloth or ſtuffs for ornament or ſervice, without being mixed with ours. This is evident from the artifices made uſe of to purchaſe it at any price, under ſuch a glaring circumſtance as *prohibition*. Surely we ought individually to put a ſtop to this baneful traffic, unleſs we mean to forego that ſpecies of commerce which has accumulated ſuch wealth and power to Britain, as gives her the empire of the ſea, and has made her the terror of perfidious nations. Let us then no longer tranſport our unwrought Wool under pretence of commerce, which tends to ruin the nation, by depriving it of thoſe profitable branches of trade, by which this kingdom muſt neceſſarily flouriſh: Let us, I ſay, remove the cauſe, and the effect will ceaſe; let us with-hold from them our Wool, and they will never be able to compete with us at foreign markets.

Having thus treated of the Woolen Manufacture in general, I ſhall now proceed to particularize ſuch branches of it as may be carried on with no leſs emolument to the private undertaker, than to the intrinſic benefit of the whole kingdom.——And firſt,

Of

Of the Broad Cloth Manufacture.

AS children ſhould be firſt taught to walk before they be made to run,—ſo infant manufactories ſhould begin with the coarſeſt kinds of goods, till by attention and experience they arrive at perfection in the fineſt. It is a fact that ten times the value of the loweſt and middling priced goods are uſed and vended more than the higher; and the overplus, after ſupplying our home demands, find a ready ſale at moſt places in Europe. In ſhort, our primary object ſhould be, to make ſuch cloth as is adapted to our own wear at home, and to the general demand abroad, before we attempt to rival our competitors in the ſuperfines. No one will deny, that the principal materials for manufacturing Broad Cloth from two ſhillings and ſixpence to thirteen ſhillings and ſixpence *per* yard (to which our attention ſhould be principally directed), is the produce of our own country; and if that ſpirit of improvement and emulation be ſtill cheriſhed among our gentlemen and farmers, I make no doubt but we ſhall have a breed of Sheep that will yield wool from which may be made cloth in any quantity, and to any degree of fineneſs, not in the leaſt inferiour to that

made entirely of Spaniſh wool. But, if it were poſſible to fail in this, we have the conſolation to be in no worſe ſituation than our neighbours, whoſe manners we may imitate by purchaſing Wool from Spain, ſeeing we can do it as cheap as they, or any other nation in Europe.

I need not tell my readers, that ſuperfine Engliſh cloths are made entirely of Spaniſh wool; which wool being conveyed from the port of importation to the great ſeats of the Woolen Manufacture, in the interiour parts of the kingdom, is ſubject to a land carriage of one hundred or one hundred and fifty miles; from which expence the importation of Spaniſh wool, to the great towns on the eaſt and weſt coaſts of Scotland, is entirely free; ſo that in this reſpect we have a manifeſt advantage over the Engliſh.

As to the middle kind of Woolen cloth, commonly called *fine*, in contradiſtinction to *ſuperfine*, we can manufacture it entirely with our own Wool, while the Engliſh are obliged to mix theirs with *Spaniſh*; and for the coarſe kinds we have Wool adapted to every price, as well as to the various branches of this trade. Now it is evident that Engliſh Wool is carried, at an average, from the ſheep countries to the manufacturing towns, eighty miles; whereas, Scots

Wool,

Wool, carried to the great towns in Scotland, is not, at a medium, ſubject to a land carriage of more than fourteen miles. This ſaving, not to mention the low price of labour, and other concurrent circumſtances, giving us a ſuperiority over the Engliſh, who have carried this branch to a greater height than any other nation, enables us to bring our goods to market cheaper than they, and demonſtrates, that the Woolen Manufacture is an object well worth the attention of my countrymen.

I have already remarked, that the French cannot manufacture broad cloths without a mixture of Britiſh or Iriſh Wool; yet they underſell the Engliſh in this article, although it is well known, the very Wool of which they are partly made, is ſmuggled at a higher price than the natives pay for it. Whence ariſes this? The anſwer is plain; from the low price of labour, cheapneſs of proviſions, and the induſtry of individuals. If theſe are the real cauſes of the French underſelling the Engliſh, may not ſimilar cauſes produce ſimilar effects? or, in other words, may not the Scots underſell the French, ſeeing we have Wool at our own door, and labour and proviſions equally as cheap?

It is very certain, that, before the union, we

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not only cloathed ourſelves from our own manufactories, but exported many of our Woolen goods abroad. How then comes it to paſs, it may be aſked, that we have fallen off from, and ſo much neglected, our own intereſt ſince the above period?—I ſhall endeavour to give this queſtion an anſwer.

I have already ſhewn you by what powerful means the Linen Manufacture was introduced hither, and recommended for a *ſtaple*. Novelty, and the hopes of gain, ſoon gave it footing; and in proportion as the Linen branch was encouraged, the Woolen declined. Our new intercourſe and alliance with the Engliſh induced us to ape their follies; and while they impoliticallly preferred foreign commodities to their own, faſhion and example diffuſed their influence over Scotſmen, and, by a vitiated taſte, cauſed them to prefer Engliſh cloth, or any thing elſe of Engliſh fabric, to home manufactures. Thus the ſtaple of Scotland grew into diſrepute. The nobility, who always give the *ton* in dreſs, neglected Woolen goods fabricated here, wearing moſtly Engliſh cloth. The landed gentlemen followed the example of the nobility, the merchants and tradeſmen that of the landed gentlemen, till the infection was caught by all ranks of people, diffuſing its malign influence from the higheſt

higheſt nobleman to the loweſt mechanic.—It is but within theſe few years that we have been ſenſible of our error. A few public-ſpirited noblemen, whoſe memories will be revered to the lateſt poſterity by every true friend to Scotland, drew back the curtain, threw off the veil, and ſhewed us our intereſt in the moſt conſpicuous point of view.

Awaked thus from a deep lethargy and tardy ſupineneſs, to a ſtate of action, and to a ſenſe of that duty we owe ourſelves, by thoſe perſons whom we have every reaſon to believe have the good of their country only at heart, we are now happily emerging from poverty and thraldom into opulence and ſecurity, by turning our views to the eſtabliſhment of trade and manufactures, which cannot fail in the end to produce the moſt ſalutary effects: and the well-wiſhers of Scotland cannot but reflect with the greateſt pleaſure, that theſe manufactures are not in their infancy; we ſee them already in a progreſſive flouriſhing ſtate; and I ſhall exert the utmoſt of my abilities to point out the ſureſt method of bringing them to perfection.

No one will deny that the inhabitants, in many parts of Scotland, are very induſtrious; but whether their induſtry have been, or be now directed

rected to proper objects, is a matter that deſerves to be inquired into. In proportion as this prevails, the more opulent, flouriſhing and happy will that nation be; the effects of it is diffuſed not only through the neighbourhood, but the country in general, while each perſon inſures to himſelf domeſtic happineſs: but when this is not the caſe, which muſt ever attend the proſecution of the Linen * branch, be they ever ſo induſtrious, they are a kind of burden to ſociety, leſs ſerviceable than they might be, and always dependent, inaſmuch as their labour can never procure them neceſſary food and raiment.

It is exceedingly reproachful to Scotland, to have been ſo long dependent on England for ſuch commodities as they could have procured at home on much eaſier terms than the Engliſh themſelves; and that the little money we have in the country ſhould be drained to ſupport the Engliſh manufacturer, when our own fields and flocks have been neglected; and people, willing to be induſtrious, half ſtarving for want of employment.—But by an exertion of modern patriotiſm, in which there is as much virtue as in

* *Except under the reſtrictions before-mentioned. See Chap. II. Pages* 101. and 107.

in ancient heroiſm, having for its object thoſe bleſſings, without which liberty is but a name,—the ſcene is happily changed. We have improved our taſte within theſe few years, by giving leſs countenance to goods of foreign fabric,—by attending to the culture of our fields, and improvement of our flocks. We have driven tattered poverty from our ſtreets, by giving proper employment to our poor; and experience convinces us, that our country, our families, our friends, and every thing that is dear to us, depend on our induſtry being beſtowed upon thoſe objects by which we can be moſt benefited; and that theſe objects are, the Fiſheries, and the Woolen Manufacture in all its branches.

Scotland, abounding with numerous ſmall towns and villages, is exceedingly well calculated for the ſeat of manufactures; but in no part more ſo than the county of Eaſt Lothian. It has been rightly obſerved, that manufactories ſeldom proſper ſo well in large cities and royal boroughs, as in country towns and villages. In the former, the working people meet with many inducements to ſpend money, which they do not in the latter; and beſides, theſe are allowed to be more healthy than large populous towns. Proviſions too are always cheaper in the country than in the capital; the price being in ſome meaſure

ſure proportioned to the demand. In ſhort, it is in vain to think of bringing manufactures to perfection in any country where vivres are dear. Mechanics will as naturally reſort to places in which they can live cheap, as a prudent man will purchaſe of that merchant who ſells the ſame quality and quantity of goods cheaper than his neighbour.

It was certainly with a view of finding proviſions cheap, that induced ſo many of the manufacturers to ſettle in the inland counties of York, Warwick, Nottingham, &c. in the former of which living is more moderate than in any other; and yet theſe places, in other reſpects, are but ill adapted for trade, being ſubject to ſuch enormous land carriage; whereas, were theſe ſituated in places where the neceſſaries of life fetched exorbitant prices, the labouring people would find it very difficult to furniſh themſelves and families with what is barely requiſite to ſupport exiſtence.

Manufactories, in their infant ſtate, labour under many diſadvantages; but prudence, attention, and perſeverance muſt at laſt accompliſh.—It cannot, however, be ſaid, that the want of money in the nation is any obſtacle to the progreſs of the Woolen Manufacture; or that

that thoſe who have it will not riſk it on this buſineſs.—For I beg leave to remind my readers, that thirty years ago, when money was much ſcarcer than at preſent, *one hundred thouſand pounds* ſterling were ſubſcribed for, and *ſeventy thouſand pounds* actually paid in, towards carrying on that of the *Linen*, under the firm of the Britiſh Linen Company. Now, I have already proved, that the Woolen Manufacture has every chance of ſucceeding; and it is equally evident that money is not leſs plentiful *now* than it was *then*, as appears from the readineſs with which one hundred and twenty thouſand pounds ſterling were ſubſcribed a few years ago towards completing the great canal. Seeing then that we are in no want of money, let us employ it in ſuch branches as will be moſt advantageous to the nation.

With regard to workmen, the goods daily manufactured are the beſt proof that we have ſome who are maſters of their buſineſs; time will increaſe their number, and experience improve their ſkill; ſo that we need not fear having workmen who will bring every branch of this valuable manufacture to its dernier perfection. I have formerly obſerved, that our people, in general, have as good genius for invention, and talent for execution, and are as ſteady in their

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operations as thoſe of England, or any other country: But if we were really in want of able and ſkilful workmen, the Board of Truſtees would no doubt give their aid to the efforts of their countrymen, by inducing the moſt able to come from England, Ireland, France, or any other country, to ſettle among us for life, giving them encouragement ſuitable to their merit; nay, as a well known author has obſerved, they ought to ſend, if neceſſary, apprentices and ſagacious workmen to the different ſeats of the Woolen Manufactures in Europe, to be perfected in the buſineſs, and to give rewards to ſuch as invent or import machinery uſeful in the different branches.

With reſpect to the quality of our goods, there are ſeveral articles in which we already excel the Engliſh, many that are equal, and but few inferiour. Our ſuperfine broad cloth is among the laſt, which not being ſo well dreſſed, is leſs pleaſing to the eye, and, conſequently, not ſo ready for ſale; but it ſhould be underſtood it is as well manufactured, is much more durable, and ſhould, therefore, be entitled to the preference. There is one thing, however, in which I wiſh our people would imitate the Engliſh, whom experience has taught, that it is more profitable to ſell one hundred pounds worth of cloth

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at five per *cent.* advance on the prime coſt, than forty pounds worth at ten per *cent.* Let us then reſemble them in this matter. Let us be content with a moderate profit in order to gain greater, and fabricate our goods well to increaſe the conſumpt, which is the foremoſt encouragement that can be given to infant manufactories.

The greateſt bar to ſucceſs in the Woolen Manufacture ſome time ago was, the careleſs or ſlovenly manner in which ſome of the cloth was finiſhed, either through inattention, or want of proper hands. There are many people who wiſh to pleaſe the eye in cloth as well as in a wife, and, for obvious reaſons, that they are to wear the one, and keep the other as long as ſhe laſts; others ſeek to content the pocket, and ſome both: But it is a natural cauſe, and it will not be denied, that, if two articles were placed before us, equal in price, and ſimilar in quality, except in the dreſſing, there are too few, I am afraid, public-ſpirited enough to reject the former, and chuſe the latter. We are, however, no longer under theſe galling circumſtances; our workmen are experienced and careful; our mechanics able to keep the proper utenſils in repair; and, inſtead of one man trudging through all the various parts of the manufacture (except ſpinning and weaving), each has his peculiar

culiar province aſſigned him, as in England; ſo that every conſtituent part is better done than formerly: A ſufficient incitement to the true friends to this country to teſtify their patriotiſm, by having their clothes of Scots Woolen Manufacture, which, if adopted by every individual, it is more than probable, that five hundred thouſand pounds *per annum* would be ſaved to Scotland. Then, inſtead of the many hundred inhabitants who are daily ſeen in our ſtreets, without ſhoes and ſtockings, in whoſe looks care and a ſenſe of dependence are expreſſed, who are actually ſtarving for want of employment, they would be rouſed into a ſpirit of induſtry, would be fully and advantageouſly employed in the different manufactories, and, by diligence in their calling, with the bleſſing of health, would be raiſed to plenty, eaſe and happineſs, and a ſtate of independence.

As to the article of dying, a matter of no ſmall importance to the Woolen Manufacture, particularly Broad Cloth, I am convinced it can be done as well here as in England; nay, be it known, that many of our countrymen, now in London, are the moſt eminent in the profeſſion. And here I cannot help mentioning an amazing improvement on the *cudbear* for dying, of which I ſaw an experiment performed in my own houſe.

houſe. Mr Cuthbert Gordon, the operator, dyed a ſmall piece of cotton-velvet, in a few minutes, of a fine crimſon colour. He likewiſe ſhewed me above twenty different colours that he could ſtain or dye *woolen*, *linen*, *leather*, *cotton*, and even vegetable ſubſtances, with as much certainty as to retaining the colour, and as beautiful, as could be done with *cochineal*, or any other drug. An acquiſition of this kind will be of ineſtimable ſervice to all the branches of Woolen, Linen, and Cotton, as it is much cheaper than what is commonly uſed, and the operation more expeditious. It is made from materials, the produce of almoſt every hill in this country; whereas the *archil*, made in England, is produced from a weed brought from Cape de Verde and the Canaries, at a great expence, and is inferiour in quality to the *cudbear*. The prejudice, therefore, that we cannot equal the Engliſh in colours, is without reaſon, exiſting only in the imagination.

Of all the encouragements that can be given to infant manufactories, a ready conſumpt for their goods is the foremoſt: Of this the proſpect is already ſo very flattering, as to inſure ſucceſs to a degree of certainty; and whenever the preſent differences between Great Britain and her Colonies ſhall have ſubſided, depend

upon it, the demands will be conſiderably increaſed.

It is well known that there are large and conſtant commiſſions for all kinds of Woolen goods, particularly for a coarſe kind, called Kendal cottons, made from the clippings and refuſe of the Wool, for the Weſt-India ſettlements. The planters there, ſince they began to clothe their negroes with woolen in place of linen, have ſaved the lives of one out of four yearly. This kind of ſtuff too has been recommended to ſuch of their white ſervants as are much expoſed to the weather, with the ſame ſalutary conſequences. The reaſon of this is obvious; the Wool keeps them in a proper degree of warmth in the mornings; and when perſpiration increaſes in the heat of the day, the woolen abſorbs it, without any diſagreeable or dangerous effects to the wearer.—Linen ſhirts, on the contrary, in ſuch warm climates, are fraught with the moſt deſtructive conſequences. They do not afford that comfortable warmth in the mornings which the woolen do; and when the heat increaſes, inſtead of ſucking up the moiſture emitted, they become ſuddenly wet, appear like a ſheet of cold lead upon the body, ſtop perſpiration, and bring on fevers and other diſorders, which often prove fatal.

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Many other ſalutary effects attending the wearing of woolen ſhirts, I collected from my own experience; and others have been communicated to me, ſince they were adopted, by the proprietors and traders of thoſe countries, but which would be unneceſſary to particularize here, after mentioning the above. I ſhall only beg leave to obſerve farther on this head, that as this practice comes to be more general, the demand for this article will proportionably increaſe, and, of conſequence, render us leſs dependent on the Germans for flax, which they have raiſed upon us, over all the continent, at leaſt 40 *per cent.* ſince I have been converſant in trade, and without which article, it is well known, we cannot proſecute the Linen Manufactures, oſnaburghs not excepted.

I have already proved, that the Woolen Manufacture ſhould be conſidered as the ſtaple of Scotland; that it merits the preference to ſuch other branches, for the proſecution of which we are obliged to furniſh ourſelves with the principal materials from foreign countries; and that it cannot be looked upon as the leaſt hazardous. On the contrary, every clog to its perfection being removed, the attention of the public engaged, and the thing itſelf happily begun, nothing now remains, but to recommend emulation

tion among thoſe who move in exalted ſpheres, and to convince them that the future opulence and glory of Scotland depends, in a great meaſure, on their wonted generous and patriotic exertions, to give ſtability to this important branch; a branch which alone has raiſed our ſiſter kingdom to eminence, and marked her as the firſt commercial nation in the known world.

Trade and Manufactures are the inſtruments by which kingdoms arrive at power and conſequence; by which individuals arrive at wealth and independence. They enable us to keep up fleets and armies, equal, if not ſuperiour to any power in Europe; by which we check the inſolence and humble the pride of our natural or avowed enemies. In this point of view the Woolen Manufacture is proved a national concern, and therefore ought to be ſtrongly countenanced by the nobility and gentry. What can the dignified and opulent be engaged in that will redound more to their honour, than endeavouring to promote induſtry among Plebeians, and internal commerce among themſelves, by wearing and recommending goods of our own manufacturing; eſpecially as we have advantages that favour the attempt far ſuperiour to the Engliſh themſelves.

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The late ſituation of Engliſh commerce with Scotland was ſomewhat ſimilar to a merchant in affluent circumſtances, who, on account of the extenſive trade he enjoys, becomes haughty and inſolent to his cuſtomers. The caſe now is widely different. An Engliſh rider (a ſpecies of locuſts who have long infeſted poor Scotland) can no longer boaſt of carrying from this country twelve thouſand pounds in a ſingle journey. No, the ſame manufactures we purchaſed from them at enormous prices, we now fabricate ourſelves, for leſs than they can, and are able to underſell them at foreign markets. Thus prompted by the dictates of intereſt and honour, we ſee in almoſt every corner of Scotland plans, aſſociations, and ſyſtems for trade and manufactures; and we find ourſelves as decently and as comfortably clothed at home in the Wool from our own mountains, as we ever could be from the flocks of England and Spain. Let us then, in the name of all that is dear to us, ſteadily reſolve to continue to give employment to our own people, and to keep our money at home, and we ſhall ſoon be as rich and independent as our neighbours, and look down on them with that ſcorn and contempt, with which opprobrioufneſs they have long treated us and our country in the moſt ignominious manner.

What real pleaſure it muſt afford every lover of his country to obſerve ſuch a number of noblemen and gentlemen, of the firſt eſtimation in the kingdom, not only giving their aid by purchaſing the manufactures, and wearing them on public occaſions, but even ſubſcribing liberally towards their ſupport. Such laudable examples have diffuſed a general ſpirit of emulation through the whole kingdom; every individual ſeems to vie with his neighbour who ſhall beſt promote the happineſs and welfare of his country. This is public ſpirit; this is real patriotiſm; very unlike that deteſtable ſpirit which, falſely aſſuming that name, has gone forth and ſpread itſelf wide in our neighbouring kingdom, as well as in the colonies, and whoſe baneful influence, as far as it extends, has thrown every thing into anarchy and confuſion.—Let us avoid their mode of conduct; and, inſtead of inſtilling into the minds of the common people a notion that government is acting arbitrarily or tyrannically towards America, let us ſupply them with plenty of work, and keep them engaged in their proper ſphere; and ſhew them an example of obedience to lawful government, inſtead of filling their heads with politics, in which they have no manner of concern. The one will afford them comfortable ſubſiſtence for themſelves and families; and, while it makes them good and loyal ſubjects, renders them

them happy and ſecure: the other, at the ſame time that it diſtracts their underſtanding, renders them obnoxious to ſociety and good order, and in the end brings them to beggary and ruin.

I have already obſerved, that the county of Eaſt-Lothian was particularly adapted for the ſeat of Manufactures, and I am happy to inform my readers, that the gentlemen and farmers in this county, reflecting with regret, ſome few years ſince, on the decayed ſtate of the Woolen Manufacture, which they juſtly conſider as the ſtaple of Scotland, reſolved to give it every encouragement in their power; for which purpoſe theſe patriotic-ſpirited gentlemen have entered into a copartnerſhip, under the beſt regulations, appointing Meſſrs Sawyers and Hamilton, gentlemen of great knowledge and ſkill in their profeſſion, to ſuperintend the work. The plan of this ſociety reflects honour on the abilities of the projector, and is perhaps the beſt that could poſſibly be deviſed. There is hardly a ſingle head of a family in the whole county, who is not, or has it not in his power to become a partner, as ſubſcriptions ſo low as five pounds are received into the copartnerſhip, which intitle the ſubſcribers to a proportional dividend of the profit, and to a ſhare of the privileges equal with thoſe who ſubſcribe ten times that ſum. At the

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ſame time, to prevent any undue influence, which the rich might be inclined to exerciſe over the middling and lower ranks of people, no perſon is allowed to ſubſcribe to this capital (which was propoſed to be augmented to three thouſand pounds ſterling) more than one hundred pounds. It is alſo provided for in the articles, that none of the managers ſhall interfere in the politics of the county, or the burghs, as ſuch interference might prove inimical to the copartnerſhip; very bad conſequences having often been experienced from party elections, even among the deareſt friends and neareſt relations. A company, therefore, whoſe exiſtence, in a great meaſure, depends upon the unanimity of the whole members of which it is compoſed, ſhould guard againſt every poſſible chance of being diſunited. It is not their intereſt, for the ſake of making one friend, to run the riſk of creating a number of enemies. They ought rather to cultivate a good underſtanding with every one; and ſurely, there can be no better method of effecting it, than to ſteer clear of being concerned with any particular party, eſpecially in political matters. This reſolution is highly commendable, and while it is ſtrictly adhered to, ſolicitations from neither of the contending parties will be made, and the company enjoy, by theſe means, the countenance of both.

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It is impoſſible this undertaking ſhould fail of ſucceſs. The partners are, in a great meaſure, able to furniſh the Wool for themſelves; and no country can be better ſituated for carrying on the Manufacture, it being ſupplied with plenty of fine water, and firing in abundance, extremely cheap. Nay, though the Company ſhould meet with ſale from no other quarter than the county itſelf, which is not the caſe, (nor could it even be ſuppoſed), yet they will conſume in cloathing for themſelves, their families, and labourers, a quantity ſufficient to employ a number of induſtrious people, from which will accrue a very handſome profit to each of the copartners. Beſides theſe advantages, this Manufacture, as I obſerved before, will open a new ſpecies of buſineſs for their ſons, whom they are often at a loſs to diſpoſe of; and conſidering the various kinds of work neceſſary in the different branches, there is no perſon from ſix or eight, to ſixty and eighty years of age, but may be advantageouſly employed in the ſeveral departments.

The author of a late publication, entitled *Eight Sets of Queries*, by *a Peer of the Realm*, was pleaſed to give me the honour of being the promoter of the above ſcheme;

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and was otherwiſe ſo partial to my zealous endeavours to ſerve my country, that he loaded me with encomiums. The approbation of ſo great and ſenſible a man cannot but be pleaſing to him who has the good of his country only at heart: and I candidly acknowledge, that next to the ſatisfaction I feel in ſeeing my honeſt efforts crowned with ſucceſs, the good opinion of this truly public-ſpirited Right Honourable author, holds the ſecond place in my mind, and prompts me to continue ſuch offices of ſervice as my abilities are capable of ſuggeſting.

At the ſame time I recommend the moſt ſerious peruſal of theſe uſeful and ſenſible Queries to the inhabitants of this country, I muſt beg leave to inform the author of them, that though I firſt propoſed the ſcheme above taken notice of, at a very numerous meeting of the gentlemen farmers in Eaſt-Lothian; yet, be it remembered, to their honour, that it was inſtantly and unanimouſly adopted. They met me moſt willingly more than half way; and therefore, it would be injuſtice not to attribute that merit to them which is ſo juſtly their due.

It is with the utmoſt ſatisfaction I can inform my readers, that, about two years ago, his Grace

Grace the Duke of Argyle † eſtabliſhed a Woolen Manufactory at Inverary, for the encouragement of which, his Grace not only ſubſcribed five hundred pounds ſterling, but has likewiſe built houſes neceſſary for carrying it on, and moſt generouſly complimented the company with all the requiſite implements and utenſils. The foundation of this manufactory redounds greatly to his Grace's honour and humanity, who, by this patriotic action, has provided laſting employment to the poor labourer, through all the ſeaſons of the year. Inverary is well ſituated for the ſeat of the Woolen Manufactures, three parts of the county of Argyle being now under Sheep-paſture; and the ſoil, as well as the face of the country around, is well calculated for the breed of Sheep. Thus, while the manufacturer has Wool at hand for the different branches of his trade, and at a reaſonable price, the farmer will get more for it when ſold at his own door, than when purchaſed by the Engliſh manufacturer, who muſt

† *His Grace, previous to this, in conjunction with ſome gentlemen in the county of Argyle, had given his countenance to a Manufacture of Yarn, for coarſe Woolen Cloth and Blankets, at the ſame place.*

ſend it home by land-carriage, at the average diſtance of one hundred miles. This proves clearly, that it is the intereſt of the landed gentlemen to promote Manufactures: For Manufactures cauſe a briſk circulation of money; money enables the manufacturer to marry; marriage augments population; population increaſes conſumption; conſumption enriches the farmer; and the farmer, by a due cultivation of his lands (the value of which increaſes proportionally), fills the coffers of the landlord, which muſt eventually, in the end, bring riches and ſtrength to the nation.

I am not in the leaſt dubious of the ſucceſs of this manufactory. The company, no doubt, have diſcernment enough to pick out men ſkilful in the various branches over which they may be ſaid to preſide; and generoſity to reward their merit. From the ſituation of the place living cannot be dear. Indeed the inhabitants of the Highlands are ſubjected to a duty on coals, which duty is not paid in any other part of the kingdom. Now if this ſhould be found a clog to the proſperity of this manufacture, and render an application to parliament neceſſary, it is not to be doubted, upon a proper repreſentation of facts, they will obtain the neceſſary relief. On the whole, as far as we can judge at preſent, this

this manufactory ſeems to be in a very flouriſhing ſtate. It is ſituated in a country where the principal materials are produced of a good quality, and in great abundance; where there is no other to interfere with it, and from whence there is eaſy acceſs, by water-carriage, to every part of the globe in which the company may have correſpondence.

About two years ago I had the honour of an interview with his Grace and his amiable Ducheſs; before whom I took the liberty to ſuggeſt two branches that might be carried on to advantage at Inverary. The firſt was ſimply this: To provide Wool tō be ſpun fit for knitting ſtockings of all kinds, from ten-pence to five ſhillings per pair, on the ſame terms and principles as at Aberdeen; which promotes induſtry among young people, who begin to knit at five or ſix years of age, and affords a handſome profit to all concerned. This employment does not keep them from their education, as they are able, with a little experience, to read and knit at the ſame time; and to prompt them to work in the beginning, I propoſed they ſhould have one halfpenny out of every three they earned weekly; and that they ſhould actually ſee, feel, and receive the money. Their parents, by agreeing to this, would get more than if they

were to pocket all their labour; and the young ones might eaſily be prevailed upon to lay out moſt of their ſavings to clothe themſelves, and keep them neat and clean. Small premiums ſhould likewiſe be given annually by the public, in every town or village, to thoſe who ſpin the greateſt quantity of good Woolen Yarn, as well as to thoſe of different ages who knit the greateſt number of ſtockings in a certain time, fit for market.

The other branch I took the liberty to mention, was the manufacture of coarſe Woolen goods, ſuch as are fabricated by the Meſſrs Killgours, on part of Mr Garden of Troup's eſtate, by Gardenſton. Theſe goods are ſold from one to four ſhillings per yard, broad and narrow. It were needleſs to give here a particular deſcription of this manufacture, as it is well known over all the country. I have not the leaſt doubt but that hundreds of our people are well ſkilled in it; or that the gentlemen themſelves would be ready to give every advice and aſſiſtance in their power to thoſe who, being ignorant of it, would be deſirous to eſtabliſh the ſame valuable manufacture in another part of the country. I cannot omit mentioning to the honour of Meſſrs Killgours, that they proſecute this branch to an amazing extent. The ſum of

money

money expended yearly among the farmers in the ſouth of Scotland and north of England, on the article of Wool alone, would be an agreeable ſurpriſe to every perſon who is a friend to Scots Woolen Manufactures. In fine, were theſe branches properly attended to, they would moſt effectually provide for the poor, be the chief ſupport of charity work-houſes, and ſuppreſs the numerous beggars in the ſtreets; who are not only conſidered by the natives as a nuiſance to the community, but, to ſtrangers, a ſtriking emblem of Scots poverty.

Now, though I reflect with an uncommon degree of ſatisfaction on the aid offered by the firſt nobility in Scotland, as well as that of many gentlemen in high offices, and of great fortune, for promoting and furthering the Woolen Manufacture of their country; yet it is not from theſe alone, great as their influence and example may be that we may expect the eſtabliſhment, of this great ſtaple. It muſt alſo meet with the joint ſupport of the gentlemen of moderate fortunes, farmers, traders, mechanics, and middling ſort of people, before we can expect a proper conſumpt: In ſhort, there is no individual, whatever be his ſtation in life, high or low, rich or poor, but may more or leſs contribute to crown theſe laudable endeavours with the wiſhed-for

ed for ſucceſs. Now, as the county of East Lothian poſſeſſes many advantages not common to others, it is ſome years ſince I caſt my eye upon it, and recommended it to its inhabitants as the moſt proper to take the lead in a matter of ſuch great national concern, knowing it to be moſt likely to bring it to maturity. I had every reaſon to believe other counties would catch the noble flame, and that the good effects it produced would not long be confined in ſo narrow a compaſs. In this, I am happy to ſay, I have not been miſtaken; for it is well known, that, within theſe few years, one or more of the different branches of this lucrative manufacture have been ſet on foot, and even attended with ſucceſs, where, perhaps, ſeven years ago it might have been thought impracticable.

The farmers in East Lothian, indeed, may be ſaid, in general, to be more wealthy than thoſe of moſt other counties, which may oblige the latter to make their ſcheme upon a narrower ſcale, and not attempt at firſt to fabricate cloths of ſo fine a quality. Suppoſe the ſubſcriptions in theſe counties ſhould be ſo low as fifty ſhillings, and the higheſt not to exceed fifty pounds: even this would raiſe a ſum ſufficient to open a manufactory which might ſupply themſelves and neighbours; and when brought to bear, as the

demand

demand increaſed, their capital might be extended. This method is the moſt prudent and rational; and I am perſuaded there are not wanting public-ſpirited gentlemen in every county of Scotland, who would willingly aſſiſt infant manufactories with their purſes, advice and intereſt.

The late fatal emigrations have loſt many people to this country, who, in all probability would have ſtayed at home, if they could have been properly employed. The preſent alarming exigencies of the ſtate are now draining away our youths by thouſands, ſome of which, it may be preſumed, were our moſt uſeful hands. It ſeems then highly expedient, that we ſhould deviſe means of giving bread to thoſe who remain, leſt, ſome time hence, our country, at beſt but thinly inhabited, ſhould become altogether depopulated. The ſureſt way to prevent this is to proſecute the Woolen Manufacture with the utmoſt vigour. Is there any branch followed in this country, by which the common people can get ſo much money? None. Is there any more lucrative to the maſter? None. Is there any which promiſes ſuch conſtant employment? None.—And have not the firſt people in the kingdom patronized it? Surely, this cannot be denied.—If, then, the public in general reſolve to encourage it, as I am certain they will, the manufacturer

manufacturer himſelf has little to fear, provided only his goods be well made, that he ſells them on a par with the Engliſh, and allows purchaſers the ſame credit, or an equivalent diſcount.

The Truſtees, within theſe few years, have given ſome degree of countenance to the Woolen Manufacture; but, I am ſorry to ſay, it is not equal to what might have been expected. They have indeed offered premiums; but they are of ſo trifling a nature, eſpecially for broad cloth, that few people have been tempted to become competitors. In my humble opinion, if they had advertiſed ſome premiums in caſh to be given to the merchant or manufacturer who ſhould export the greateſt quantity of Woolen Cloth, and gold medals to ſuch noblemen and gentlemen as imported the beſt rams into the country for improving our breed of fine-wooled Sheep, the goods effects thereof would have been felt ſome time ago; and until plans of this kind be adopted, and the premiums adequately proportioned, it cannot be expected that the nation in general ſhould enter into the true ſpirit of this important branch, ſo capable of raiſing Scotland to the higheſt pitch of glory and opulence.

On the 23d of January 1775, I propoſed that the Linen-Hall, which is under the direction

tion of the Truſtees for Fiſheries, Manufactures, &c. ſhould take in Woolen Cloth in the ſame manner as they do *Linen;* that two thirds of the value ſhould be paid the proprietor on delivery of the goods into the Hall, after being valued by people of ſkill; that the remainder of the price ſhould be paid when turned into caſh; and that the manufacturer ſhould be liable to no charge whatever, except legal intereſt for the money advanced. If this plan had been adopted, the manufacturers might have brought their goods to market at little expence, and have been ſupported with money to carry on their trade. Nay, the Bank itſelf, which had afforded the ſupply, would have received great benefit, as the honeſt tradeſmen, inſtead of caſh, would have taken notes, and circulated them about the country. Banks were originally inſtituted for ſuch purpoſes as theſe; the utility of which may be traced by ancient cuſtom; and the ſecurity of pledges of a ſtaple commodity, has always been looked upon as the moſt certain fund. Witneſs the Banks of Amſterdam, Venice, and Hamburgh; who, adhering ſtrictly to this maxim, receive no other ſecurity than real value pledged with them.

A few months after I had made the above propoſition, the Truſtees accordingly ordered, that

that Woolen goods ſhould be received into their Hall, on the ſame terms as the Linen. But theſe, as I have heretofore obſerved, are ſo very diſadvantageous to the manufacturers, that, inſtead of affording them relief, it ſeems rather calculated to put money into the pockets of the ſervants in the Hall: for the different gratuities they receive do not amount to leſs than 5 *per cent.* upon every piece of Linen cloth diſpoſed of in that Hall; an expence which the profits made by Linen eſpecially can by no means bear: nay, I am very certain, that many of the manufacturers of that commodity would think they gained much, provided they had a clear gain of 5 *per cent.* accruing from their trade. How abſurd, then, muſt it be, to diſtreſs the greater part of the manufacturers in the kingdom, in order to enrich one or two mercenary ſervants of the public?—Would it not be more eligible to give theſe men a ſuitable ſalary out of the public money, than allow them thus to prey upon the induſtrious, and draw the profit which moſt properly belongs to the manufacturer?

The Linen Manufacture being thus diſtreſſed, though it has long been the favourite of the public, it is not to be wondered at, if the Woolen (looked upon by ſome with a jealous eye) ſhould meet with the ſame, or a worſe fate.

ſate. This has accordingly happened; for they not only demand the ſame exorbitant *per cents.*—but, what is moſt extraordinary, and would ſcarcely have entered into the imagination of any one, except thoſe who think of nothing but their own private emolument, *Engliſh Woolen Goods* are likewiſe received into our *Scots Linen Hall!*—Such conduct as this cannot well be accounted for. That a hall, erected and opened for the ſale and encouragement of the Manufactures of Scotland, ſhould be made a vehicle for the diſpoſal of goods of another country, is a proof that we have not the leaſt ſpark of patriotiſm, and that we are entirely regardleſs of our own intereſt. If a practice ſo abſurd, and ſo inimical to the welfare of this country, be not immediately ſuppreſſed, the bad conſequences ariſing from it will be ſeverely felt: For I am perſuaded, had thoſe concerned in it enforced their utmoſt invention to find out a method to cruſh our Woolen Manufacture in its infancy, they could not poſſibly have fallen upon an expedient which would more effectually have anſwered the purpoſe.—I am willing, however, to believe, that theſe deſtructive meaſures have been adopted without the knowledge, or at leaſt without the conſent of the Board of Truſtees.

From the above impartial ſtate of the caſe, it will reaſonably be concluded, that too much has been entruſted to the ſervants in the Office; who, on their parts, have not been over ſcrupulous in diſcharging that confidence repoſed in them.—Many of the honourable members of the Board were ſome time ſince convinced of the neceſſity of altering the preſent plan, and reſolved to give all poſſible aid to the Woolen Manufacture: They ſaw the bad tendency of allowing their officers diſcretionary power, as to the diſtribution of the ſeveral premiums; and wiſhed not to have them claſſed in that diſproportionate manner in which they then ſtood; obſerving, that it was ridiculous in the higheſt degree, that the ſame premium ſhould be allowed for the beſt dozen of hats †, which was offered for the ſix beſt pieces of broad cloth. The former might have been manufactured for twelve guineas; while the latter would require a ſum greatly exceeding one hundred pounds ſterling.

Though premiums of this kind are eſſentially neceſſary to excite emulation in workmen, a great

† *The candidates for this article ought to be confined to ſuch as they ſell at one guinea each, reſerving to themſelves a moderate profit.*

great mean of bringing infant manufactories to perfection,—yet I am far from thinking this alone ſufficient, be they ever ſo well proportioned.—It is the encouragement of the public at large that muſt bring undertakings of ſuch national importance to that degree of reputation which alone can ſtamp them with ſucceſs; and as every individual is a part of that public, I hope none will entertain the opinion, becauſe he is ſingle, his efforts can be of little ſignificance. This is far from being the caſe: Companies of people, entering into aſſociations to uſe nothing but the manufactures of their own country, will, no doubt, have a more immediate effect on the conſumption of theſe articles: But, on the other hand, where individuals are, perhaps, unconnected with ſocieties of the above nature, from choice, or any other motive, they may diſcover as much public ſpirit, and do as much eſſential ſervice to their country, as if they were really enrolled under their banner, by purchaſing every article they ſtand in need of that is manufactured at home.

On this occaſion, I cannot help informing my readers, many of whom may be ignorant of the thing, that, about two years ago, a new Academy was eſtabliſhed at *Madrid*, under the title of "*The Friends of their Country.*" The de-

ſign of this inſtitution is, to encourage agriculture, manufactures and induſtry, arts and trade, which are viſibly decaying in Spain. The Prince of Aſturias, the Infants Don Gabriel and Don Antonio, the Marquis de St Croix, the Prince Pignatelli, the Duke de Crillon, the Count de Montalvo, the illuſtrious Campomanez, and other grandees of the Court, have cauſed their names to be inſcribed in the liſt of Academicians; and the King (ever attentive to the protection of eſtabliſhments advantageous to his ſubjects) has not only approved of the inſtitution and ſtatutes of this Academy, but has alſo been pleaſed to aſſign a ſum of money for an annual diſtribution of two premiums, to be given to ſuch agricultors, manufacturers, or artiſts, as ſhall diſtinguiſh themſelves in their profeſſion.

The title this ſociety has aſſumed, which is, *The Friends of their Country*, is a glorious one indeed, and what every true Scotſman ſhould be proud to deſerve. Would it not be highly praiſe-worthy in the city of Edinburgh, aſſiſted by the nobility and gentry of Scotland, to eſtabliſh a ſimilar one here?—Two years ago, an aſſociation was formed at Hamilton, by a number of patriotic gentlemen, who determined to countenance nothing but the manufactures of their

their country; ſo that each perſon wearing a ſuit of Broad Cloth, of Scots Wool and manufacture, actually maintains one of his poor countrymen, together with his family, two months of that year. This is the beſt mode of charity that can be practiſed, and in which there is more merit than giving a beggar ſixpence to get rid of his importunities.—A good example, by whomſoever given, is always worthy of imitation; and I have a better opinion of my countrymen, than to imagine they will heſitate a moment to pronounce the above-mentioned inſtitution of the nobles at Madrid, as well as the aſſociation at Hamilton, truly meritorious.

I have already obſerved, that every individual has it in his power (let his ſtation in life be what it may) to teſtify his patriotiſm to his country; and I am happy to have it in my power to declare, that Scotland inherits a number of ſuch patriots.—To enumerate the whole inſtances would fill a volume of itſelf; but there is one in particular that I cannot paſs over, as, if followed by others, it would increaſe the internal conſumpt of woolen cloth, hats, &c. to a ſurpriſing degree; and which inſtitution (though on a much ſmaller ſcale than that of Madrid) reflects a proportional ſhare of merit on the projector and encouragers.

A number of tradeſmen here have formed themſelves into a ſociety to encourage Scots Manufactures. They have choſen a treaſurer, who collects five ſhillings monthly from each member, which money is lodged to purchaſe complete ſuits of clothes, of home fabric; and in order that no diſſention may ariſe among them who ſhall be firſt ſupplied, the event is determined by lot. Thus, every one in the ſociety is furniſhed with a complete ſuit, from head to foot, at ſo ſmall payments as five ſhillings monthly; a ſum which every induſtrious mechanic may ſpare, without diſtreſſing, in the leaſt, either himſelf or family. If this method were generally adopted by the labouring part of mankind, and even by thoſe in middling ſtations of life, at their convivial meetings, throughout Scotland, each would contribute much to his own intereſt, to that of his country, and to his fellow-tradeſmen of every denomination.—But to return to, and conclude the ſubject of premiums.

The chief, and almoſt the only purpoſe that premiums can anſwer, or at leaſt ſuch as the Board of Truſtees are enabled to offer, is, to excite and cheriſh an emulation among the various manufacturers, to excel each other in their different branches, as to the fineneſs and quality

of

of their goods; and, at the ſame time, to afford them ſome reaſonable hope, that if they be ſucceſsful, the premium will indemnify them, even though the article for which it were granted ſhould not find a ready market. When manufacturers, by the encouragement granted by the Board, ſhall be convinced of this, they will eſteem *honour* preferable to the trifling advantages annexed to the article under competition; and a true ſpirit of emulation being once rouſed, depend upon it, it will not eaſily be damped. We are all apt enough to put the full value upon our merit; and if a candidate prove unſucceſsful this year, he will not, on that account, give up the conteſt for the next; flattering himſelf with abilities and means to manufacture goods of a quality no wiſe inferiour to thoſe of the ſucceſsful candidate. The creating and keeping alive ſuch ſpirit, I ſay, ſhould be the principal view in granting premiums; and if due attention were paid to them, the moſt ſalutary effects would enſue: For, when a perſon has attempted an improvement in any thing practicable, pride will not let him give it up until he has brought it to the higheſt point of eſtimation; nor will he be diſcouraged from proceeding, even though he ſhould be at firſt unſucceſsful.

From

From what has been premiſed, it is evident, that no country in the world is better ſituated for carrying on the Woolen Manufacture, ſince we enjoy many ſuperiour advantages over our neighbours. I do therefore moſt earneſtly recommend it to the patronage of the Honourable Board, particularly that of the Broad Cloth, under whoſe auſpices it muſt ſucceed, eſpecially as we have already brought this branch to ſuch a ſtate of perfection, that no Scotſman need be aſhamed to wear the manufacture of his country.

Beſides our own conſumpt, this article would find a ready and profitable ſale at foreign markets; as a proof of which I ſhall advance what I have gathered from my own experience. In my juvenile years, I purchaſed ſome pieces of broad cloth, from four to ten ſhillings per yard, and ſome dozens of ſtockings from twenty-pence to four ſhillings per pair, of the manufacturers, and took them to Hamburgh; where I bartered them for ſuch goods as had a quick demand, attended with good profit, at home. For the ſtockings that coſt me twenty-pence *per* pair, I got, in exchange, one yard of Linen, valued there at thirty ſtivers, which I ſold on my return to Edinburgh at three ſhillings per yard, and was thought a great pennyworth. All my

hoſe,

hoſe, together with my broad cloth, went off in that proportion for ſeveral voyages, until I ceaſed going to ſea; and, unfortunately, I could not meet with a proper perſon to tranſact my buſineſs.—Had I continued myſelf ſome years longer, and dealt in no other article, it is beyond a doubt I ſhould have accompliſhed what we all aim at. From this traffic, I have ſhirts by me fit for any man of buſineſs to put on, that have had their ordinary courſe of wear, for twenty-ſix years paſt, which coſt me no more than a pair of ſtockings per yard, value one ſhilling and ten-pence at Leith. It is true they are now, like myſelf, the worſe for wear; but, as a proof of the preference this Linen has over Scots, I muſt declare, that only ſeven years ago I purchaſed ſome of this, which coſt me five ſhillings and three-pence *per* yard, and it is now all to rags; though the ſhirts made of it were no oftener worn than in common rotation with my old Hamburghers.

I could not refrain mentioning the above circumſtance, as it corroborates what I have ſaid before on the Linen Manufacture; and ſhews how ridiculous it is to attempt to rival other countries in what is their natural ſtaple; and the more eſpecially, as we can be ſupplied with that very article from them (without taking money

ſhillings per pair; and I can ſay, from my own experience, that I have purchaſed them here of a better quality, and cheaper by 10 *per* cent. than I ever could thoſe of Engliſh fabric at any ſhop in Edinburgh. Notwithſtanding this, to our ſhame be it ſpoken, I have known ſome ſhopkeepers in this city remit, or pay to thoſe people called *Engliſh Riders*, but more properly *The Drainers of our Specie*, from three to four thouſand pounds ſterling annually. But that this ſhould continue to be the caſe, is as extraordinary as it is unaccountable, ſeeing we poſſeſs many eminent advantages over our induſtrious neighbours. The price for ſpinning, labour and proviſions, is infinitely cheaper than in England; eſpecially firing, which is a very eſſential article, and with which almoſt every part of this country is plentifully ſupplied.

There is no difficulty, however, in aſſigning a reaſon why, a number of years ago, we ſhould conſume a large quantity of Engliſh manufactured Stockings. That country was the firſt which invented and practiſed the method of weaving in looms; by means of which invaluable machine, the manufacturers could afford to ſell Stockings cheaper than thoſe who cauſed them to be knit by hand. But now that we have the ſame machines throughout every part of Scotland, and workmen

workmen of equal abilities, who can furniſh the public with goods of the ſame quality, and at lower prices, we muſt certainly be altogether inexcuſable if we give the preference to thoſe of Engliſh Manufacture, or any other country, merely becauſe they are of foreign fabric. And as to knit ſtockings, I dare boldly affirm, that Scotland ſtands unrivalled in this article, whether they be conſidered in their price, quality, or fineneſs.

I have already mentioned, that after ſupplying the demands of our own country, the overplus, however great the quantity, will meet with a ready ſale at foreign markets; among which are the Seven United Provinces in Holland, where they will ſell to good account. Campvere, a free port, gives great encouragement to this valuable ſtaple; and at Bremen, Hamburgh, Lubeck, and Dantzick, all free ports, they are purchaſed with great avidity, and afterwards ſent from theſe places to the greateſt part of Europe.

The Zetlanders, ſenſible of their own intereſt, and tenacious of independency, have long made great quantities of coarſe Stockings for the Hamburgh market, for which they get good returns. —I have had Stockings made of the wool of that

country ſo fine as to equal ſilk, which laſted longer than any four pair of ſilk or worſted Stockings I ever wore. Indeed, I have been informed by an Engliſh gentleman, thoroughly converſant in theſe matters, that the wool of this country is as fit for making Stockings to any degree of fineneſs as that of England, Spain, or any other country.

That the Wool of Zetland is of an extraordinary quality, and proper for making up into fine Stockings, is evident from the great demand for it at Aberdeen, the principal ſeat of this manufacture.—This Wool is brought annually from the Highlands in the months of July and Auguſt, immediately after ſhearing-time, and expoſed for ſale in the public market-place of Aberdeen. Among the fleeces of the ſmaller kind is found Wool, finer than, and preferable to, any Spaniſh Wool for the above purpoſe. The fine pair * of Stockings

* *The Magiſtrates commiſſioned, for the above purpoſe, ſome of the* fineſt *Spaniſh Wool from London, without paying any regard to price. When it came, the women who were to ſpin it complained of its* coarſeneſs, *and prevailed on their employers to wait till July, the time the Highland Wool is uſually* brought to this market *from*

Stockings made a preſent of to Marſhal Keith by the magiſtrates of Aberdeen, and from him to the Empreſs of Ruſſia, valued at five guineas, were manufactured from this very Wool.

A perſon who ſigned himſelf *A Stocking Manufacturer* at Aberdeen, but whom I take to be *A Snake in the graſs*, animadverting ſome time ago on that excellent pamphlet, entitled Eight ſets of Queries, written by a Peer of the realm, avers, that improving the Wool of the Sheep in that country, would be of far leſs eſſential ſervice to the Stocking Manufacture there than is generally imagined. He affirms, that nothing but ſkin Wool is made uſe of in this manufacture, and that, although the county of Aberdeen ſhould produce as good Wool as that now

which they would undertake to ſpin threads as fine again as they poſſibly could from the Spaniſh Wool. *The Highland Wool was accordingly bought, and from a pound weight of it, they ſpan forty-two thouſand yards in length, which was nearly the double of what could be produced from the Spaniſh Wool.—In ſhort, the Stockings when finiſhed were ſo amazingly fine, that they might both together with eaſe have been drawn through a ring of an inch diameter.*

uſed, unleſs a market could be found to conſume as many Sheep as would furniſh conſtant employment to the manufacturers, they could not be benefited, as all the Sheep at preſent ſlaughtered in Aberdeen, in that ſeaſon of the year when the Wool is moſt valuable, would not furniſh one hundredth part of the quantity conſumed by the different manufacturers.—As the author of the above ſentiments ſeems to be inimical to the bettering of our breed of Sheep, and otherwiſe but ill acquainted with the Wool proper for the manufactory of which I preſume he is maſter, I ſhall endeavour to prove the fallacy of his reaſoning by arguments drawn from my own and others experience.

The material difference between *ſkin* and *fleece* Wool, if ſuch there be, muſt conſiſt in the laſt being longer than the firſt. Now the length of the pile of Wool, ſo far from being an objection to the Stocking manufacture, if with its length it has a proportionable degree of fineneſs, it is juſtly conſidered as more valuable.—Every body knows that the manufacturers of Norwich are chiefly ſupplied with *fleece* Wool from Lincolnſhire, for carrying on their extenſive manufactures of crapes, gauzes, &c.; from which it muſt follow, that the ſame kind of Wool would be as proper for making Stockings as crapes, poplins,

poplins, and other kinds of ſtuffs.—Nottingham, the emporium for Stockings in England, as Aberdeen is for Scotland, is ſupplied with Wool from that county, and Leiceſter. Nor do the manufacturers uſe any, or but very little *ſkin* Wool; and yet their Stockings are as fine as thoſe fabricated at Aberdeen, ſuppoſing them to be all made of ſkin Wool.

The notion that ſome of the Stocking Manufacturers have imbibed, that ſkin Wool is better for their purpoſe than fleece Wool, is altogether chimerical, and forced upon them, through motives of intereſt, by the London Wool ſtaplers, who make uſe of every device to perſuade the good people of Aberdeen, that it is impoſſible for them to be ſo well and ſo fitly ſupplied with that article as from themſelves. Beſides, it is a matter of doubt with me whether one perſon out of ten can diſtinguiſh ſkin Wool from fleece Wool; and whether the latter is not ſometimes palmed on them for the former, with a view to monopolize the trade. Be this as it may, the Wool they get from London is found to anſwer their purpoſe; and ſo would their own country Wool, provided they would either ſort it themſelves, or get a proper perſon to do it, as all fleece Wool is obliged to be, before it can be wrought up in the various branches of the

Woolen Manufacture. Let them one and all reſolve to try the experiment, and I will be anſwerable for its ſucceſs. Let them, I ſay, purchaſe the Wool produced in their own, and the adjacent counties (they can purchaſe it 15 or 20 *per cent.* cheaper than that they get from London;) it is a duty they owe to themſelves and their country; and it will enable them to ſell their goods cheaper both at home and at foreign markets, which will ſecure them a deſirable ſuperiority over their competitors in this branch.

The Stocking Manufacture has two conſiderable advantages over that of the Broad Cloth, which are, firſt, that a Stocking Weaver, from the time of clipping the Wool, can have his Stockings at market in three weeks; a Weaver of Broad Cloth, his Broad Cloth not leſs than ſix or eight weeks: the former can be carried on with little money; the latter requires a large capital, the want of which is diſtreſſing to the ingenious mechanic, and a great obſtruction to the improvements of a country. Happily, however, this obſtacle is, in a great meaſure, removed, by the public-ſpirited conduct of ſeveral noblemen and gentlemen of property, who, with a diſintereſtedneſs worthy of their exalted characters, have eſtabliſhed manufactories of various kinds in different parts of the country; not ſo much

much with the view of reaping any advantage to themſelves, as giving bread to the hungry, employing the *young* as well as the *aged*, and thus rendering *thoſe* uſeful members of ſociety, even in infancy, who, without being early inured to labour, and initiated in induſtry, might have proved the very bane of it; while *theſe*, by being ſupplied with ſuch work as is adapted to their failing ſtrength, inſtead of becoming burdens upon the public, are enabled to gain a comfortable livelihood; bidding defiance to abject poverty, and holding the charity work-houſe in honourable contempt.

Such laudable actions as theſe reflect more honour to the humanity of the performers, than if they had beſtowed half of their eſtates upon the indigent. The one is rendering a *laſting* ſervice to his country, and doing preſent good to the individual; the other may be the mere effects of a milky diſpoſition, not able to reſiſt the ſight of an object in diſtreſs, and therefore is ready to afford him a ſmall temporary relief. This is undoubtedly charity; and I ſhould be ſorry to give it any other name; nor do I ever wiſh to ſee the bowels of compaſſion ſhut againſt the calamities of my unhappy fellow-creatures: But this I am certain of,—he who affords employment to the induſtrious poor, driving poverty

verty from their habitation, is poſſeſſed of more real charity, and diſtributes it more effectually than another who, regardleſs of the well-being of ſociety, gives a ſmall pittance to the beggar, who haunts his door, to prevent him from immediate ſtarving.

Among the number of noblemen and gentlemen, who might be ſingularized as poſſeſſing this diſintereſted, and nobleſt of all charities which I have been endeavouring to recommend, I ſhall mention only two at preſent; the one is his Grace the Duke of Argyle, the other Lord Gardenſtone.

His Grace (whom I have already mentioned on this head, under the article of Broad Cloth, as having, two years ago, eſtabliſhed a Woolen manufactory at Inverary), previous to this, had eſtabliſhed, at the ſame place, a manufacture of Yarn, for coarſe Woolen Cloth and Blankets. It has been found to anſwer the laudable purpoſes for which it was intended, and is now in a very proſperous ſituation. In this manufactory, ſixty or ſeventy children, belonging to the poor people in the neighbourhood, have conſtant employment at ſpinning and carding. Two of theſe children are allotted to each wheel; the one ſpinning, and the other carding, alternately,

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as conſtant employment, either at the one or the other, would be weariſome to ſuch young minds, and tend to create a diſlike to any kind of employ: but by changing hands (as they frequently do), they begin again with freſh vigour and ſpirits, become acquainted with different branches, and look upon their work as an agreeable amuſement. Theſe poor children (many of whom are under eight years of age), inſtead of being a burden upon their parents, earn at leaſt what will maintain them. Beſides, they have not that opportunity of becoming early acquainted with thoſe vices which are deſtructive to ſociety, and almoſt certain ruin to themſelves. They are inured betimes to a habit of honeſt induſtry, are an ornament to ſociety, and a bleſſing to their parents. It would be needleſs here to expatiate on the numerous advantages which muſt neceſſarily reſult from ſo wiſe, ſo humane, and ſo patriotic an inſtitution. Theſe will naturally occur to every one ſuſceptible of the nobler emotions; and, I hope, will be a ſufficient inducement to others, who are happily poſſeſſed of the means, to imitate ſo praiſe-worthy an example.

The other inſtance of public ſpirit which I am now to relate, is practiſed by Lord Gardenſtone. His Lordſhip, a few years ago, actually erected a neat,

a neat, handſome village, ſituated in a fine country, called the How of the Mearns. Here (under the patronage of ſo worthy a man) induſtry is courted by all, and many branches of manufacture, are carried on to a ſurpriſing degree of extent and perfection. In order to induce manufacturers to ſettle in this village, every poſſible encouragement is offered them. His Lordſhip not only ſupplies the inhabitants with ground for houſes and gardens, at threepence per *fall*, but, likewiſe, moſt generouſly gives every well recommended ſettler in the village his houſe and garden free for the firſt ſeven years, and offers premiums to ſuch as excel in different branches of manufacture. In ſhort, the population of, and improvements made at, this place in ſo ſhort a time, are beyond conception; the planting and hedging about it are very extenſive, and are in a more thriving condition than any I ever ſaw in this, or any other country where I have had occaſion to viſit.

But there is one manufactory newly eſtabliſhed at this favourite village, which I cannot, in juſtice to his Lordſhip's wiſdom and humanity, omit particularizing: It is the manufacturing of Stockings in frames or looms, by which they are wrought in a very expeditious manner,

and

and ſold at very moderate prices. Beſides this, there is a perſon engaged to ſuperintend this manufactory, who employs a number of perſons in knitting Stockings, with a view of ſupplying his cuſtomers with either kinds. The induſtrious people employed in this place are very numerous; the dexterity of the youths, who ſpin with both hands at once (either wool or flax), is not leſs to be admired, than the expedition with which it is executed, having been told of girls, not above twelve years of age, who ſpin, in this manner, two ſlips a-day.

The vaſt improvements made at this place have, no doubt, cauſed the proprietor to ſink a large ſum of money: But the heart-felt ſatisfaction he muſt enjoy, in being the mean of mitigating the poverty, and relieving the diſtreſſes of ſo many of his fellow-creatures, not to mention the certainty of a reimburſement in due time, will ſufficiently compenſate for the trouble and outlay his Lordſhip has incurred on the occaſion.

To ſhow you how far examples of this kind influence the conduct of others, I am obliged to declare, to the honour of the gentlemen of the farmers' club in the Mearns, that ſome time ago, in order to encourage the above Stocking Manufactory,

Manufactory, they ordered the maſter to make a pretty uniform of this Stocking cloth, with the word *Plough* ſtamped upon the buttons, in which dreſs they always appear at their public meetings.—If ſimilar manufactures were ſet up in different parts of the country, there is no doubt of their meeting with due encouragement from a generous and patriotic public.

As a final inſtance of his Lordſhip's *amor patriæ*, I muſt alſo inform my readers, that he lately engaged, and ſent north a native of England, eminent in his profeſſion as a wool-comber, who is, beſides ſuperintending that branch at Laurence-kirk, bound to inſtruct, in this buſineſs, ſuch young people as his Lordſhip ſhall think proper to ſend to him for that purpoſe. His Lordſhip has alſo under contract a perſon well ſkilled in cloth-printing. This gentleman, though a native of Scotland, has long reſided in England, where he acquired great ſkill in cutting patterns for, and executing every part of, the printing buſineſs in the moſt maſterly manner. He prints cloths from the loweſt to the higheſt prices, and imitates Indian chints ſo accurately, that it requires more than ordinary perception to diſtinguiſh them from real. My fair countrywomen, upon a juſt and candid compariſon, will, I am ſure, encourage the manufactures

factures of their country, in preference to thoſe of the Eaſt, ſeeing they are in no wiſe inferiour as to the quality of the ſtuff, beauty of colours, or propriety of workmanſhip.

About two years ago, a public-ſpirited gentleman eſtabliſhed a Stocking manufactory at Dumfries, a place well ſituated for foreign trade or manufactures, though hitherto but little buſineſs has been done in either. Worſted, thread and ſilk Stockings and Gloves, are all fabricated here; and in point of colour, workmanſhip and finiſh, are equal to any manufactured at Nottingham. This undertaking, like others of the ſame nature, had many difficulties to encounter with; but none ſo much as that infatuated prepoſſeſſion which the inhabitants of this country have long entertained in favour of Engliſh goods. This is happily removed, which has greatly increaſed the demand at home; and I am credibly informed, that large quantities of the goods of this manufactory are ſent into England, and that ſome are exported abroad: ſo that it is hoped the monied people in the town and environs of Dumfries, ſeeing the ſucceſs that attends this manufactory, will catch the patriotic flame, and be induced to eſtabliſh others in the various branches of the Woolen trade.

Any farther eulogium on the patrons and promoters of theſe, and ſimilar praiſe-worthy enterpriſes, were I even capable of doing juſtice to their merit, might be thought adulatory. I ſhall, therefore, only add, that while I ſincerely wiſh their noble efforts may be crowned with ſucceſs, I am certain that ages to come will cheriſh the memory, and chaunt forth the praiſes of thoſe men, who, when their country was groaning under poverty and wretchedneſs, nobly ſtepped forth, and ſaved her from ruin, by pointing out a ready and certain road to future grandeur and opulence.

CHAP.

CHAP. III.

SECT. III.

Of the Hat Manufacture.

THE laſt article I ſhall treat of under this chapter is more recently eſtabliſhed here than any of the preceding, which is, the manufacture of Hats. This branch of the Woolen trade, tho' not of long ſtanding in Scotland, has, perhaps, been brought to greater perfection than any other hitherto attempted (the Stocking branch excepted). The reaſon is plain: No perſon can be employed in this buſineſs who has not ſerved a regular apprenticeſhip for ſeven years; a time fully ſufficient to make any one completely maſter of his buſineſs.

From the materials of our own country produce, we are enabled to furniſh the public with hats, from one ſhilling to twelve ſhillings and ſixpence *per* hat, as well manufactured, and of

as fine a quality proportionable to the price as any nation in Europe. If finer Hats be required, we can be under no ſort of difficulty in procuring the requiſites; I mean the fur of the beaver, from which we have workmen who can make them from twelve ſhillings and ſixpence to any degree of fineneſs. We can purchaſe theſe materials as cheap, and of as good a quality as our neighbours, it being a branch of commerce not unknown to Scotland; but if we were to commiſſion fur from London, it can be brought to the port of Leith at as ſmall an expence as it is poſſible to convey it to any inland manufacturing town in England.

Vaſt quantities of wool are yearly conſumed in the coarſe kind of Hats, and for thoſe of a middling quality. I am well informed by the moſt experienced hatters, nay, I have even proved (when treating of the different degrees of fineneſs of wool, in Chap. I. Sect. I.), that the pile of fur on our hare and rabbit ſkins, from our northern ſituation, is ſuperiour to that produced in the ſouthern parts of Britain.

The conſumpt of Hats, for the inhabitants of North Britain alone, on a moderate computation, may amount to ſixty-five thouſand pounds ſterling annually. This, without

out including what might be exported, demands our moſt ſerious attention. If every inhabitant of Scotland were to wear Hats of our own manufacturing, what ſervice would they not do to their country?—They would not only give employment to men regularly brought up to the buſineſs, but alſo to women, boys and girls, who might be ſerviceable in carding, picking, and cleanſing the materials, as well as in lining and cocking the Hats. The hands thus employed would earn good wages; and the maſters (by due encouragement from the public) be enabled to pay them regularly every Saturday, and put them upon an equal footing with their rivals the Engliſh.

This branch, important as it may be made to Scotland, requires no other aſſiſtance than that our countrymen ſhould part with their partiality for every thing that is foreign. Make a fair compariſon between Hats manufactured here and thoſe which are imported from England, and candidly give the preference to thoſe which are beſt and cheapeſt. Were this judgment to take place, this manufacture would flouriſh. Have we not all our materials as good as, and ſome better than the Engliſh? and is there not a conſtant interchange of

workmen*? And, with reſpect to wages and firing (the laſt a principal article in this branch), they are conſiderably lower than in England. From all which it muſt appear, the maſters themſelves being eminent in their profeſſion, that we can manufacture this article here as good and as cheap as at any place in the known world; particularly the coarſe kind (which are made all of wool), 20 *per cent.* lower than our neighbours.

Moſt

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* *It is remarkable that the journeymen hatters are, moſt of them, great inland travellers. The conſtitution of their buſineſs (for which it has no leſs than the ſanction of a Britiſh ſtatute) gives them great opportunities of going from place to place. One maſter hatter throughout every town in Great Britain, is obliged to employ any man who comes to him, provided he has ſerved ſeven years apprenticeſhip, or collect a certain ſum from himſelf and the trade, ſufficient to carry him to the next town; and this charge, if there be many maſter hatters in the place, falls on each by rotation. This is the reaſon why journeymen hatters ſeldom remain long in one place; nor can any one of them be employed, or receive the leaſt ſupport, if he cannot produce his articles of indenture.*

Moſt of the Hatters in town have taken up the retail buſineſs, for no other reaſon, than becauſe our merchants and haberdaſhers refuſed to do them and their country juſtice. In this I cannot but applaud their ſpirit, for refuſing to be the dupes and foot-balls of theſe gentry, moſt of whom (pardon me the expreſſion), have no more knowledge of the goodneſs of a Hat, than the perſon who offers himſelf a purchaſer. To prevent, therefore, their being entirely trampled upon by theſe pretenders to knowledge, in the buſineſs in which they have been regularly brought up, ſeveral of them have opened retail ſhops for themſelves, and, I will take upon me to ſay, they deal honourably in their profeſſion, and will, by no means, take an advantage of the ignorance of any one who may apply to them for themſelves or friends.

To inform my countrymen they can be ſerved upon better terms by the manufacturer himſelf than by a perſon who commiſſions them from a ſecond, or perhaps a third hand, would be paying but a poor compliment to their underſtandings. I chuſe rather to reſt the force of my argument upon the benefit that muſt unavoidably reſult to the country, by encouraging its manufactures, than upon any trifling gain which might center in the purchaſers' pockets

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by applying to the real manufacturer, inſtead of a haberdaſher, who ſhamefully imports large quantities of goods from foreign countries, with which he could be equally well ſupplied at home. A conduct like this deſerves the ſevereſt animadverſions; and I ſincerely wiſh the public would retort upon them, by deſerting thoſe ſhops which are entirely calculated to drain the country of ſpecie, and reſorting only to ſuch as encourage their home manufactures.

Before I diſmiſs this ſubject, I cannot but take notice of two articles which ſeem to affect the proſperity of this branch.

The firſt is, concerning the clipping of lambs' Wool.—Being ſome time ago in company with many of the moſt reputable hatters in Scotland, the converſation naturally turned upon the preſervation of the Wool moſt adapted for their buſineſs; when it was unanimouſly agreed, that the ſtore-farmers, and all raiſers of lambs, ought to clip their Wool off in the month of June or July; that the benefit accruing from ſuch a practice would be conſiderable, as they would always find ready ſale for their Wool; that after being thus clipped the fleece would grow cloſer, and be prevented from ſhading; and laſtly, that it would hinder the wet from penetrating

trating into the ſkin, and prevent the lambs from caſting their fleeces, which they frequently do at the above time of the year, when nature requires to be aſſiſted.—As the buſineſs of Hat-making is in a very thriving condition, I think all ſtore-farmers and raiſers of lambs ſhould take the hint; being perſuaded it will bring much money into their pockets, and be of eſſential ſervice to the country in general.

And now that I am ſpeaking of *clipping* or *ſhearing*, I cannot but obſerve, that a little of the public money could not be better employed than by ſending a few perſons, well ſkilled in the art of ſhearing Sheep, into ſome parts of the north of Scotland, the Orkneys, Zetland, &c. where I am informed the farmers are in uſe to *row* their Sheep, as they call it; that is, to pull off the Wool with their hands, much to the hurt of the Sheep as well as to the loſs of the Wool. —Theſe Sheep-ſhearers ſhould be furniſhed with the proper implements for cutting the Wool off the Sheep in the ſame manner as practiſed in this country; though I preſume the Engliſh are much cleverer at Sheep-ſhearing than ourſelves. —They ſhould likewiſe be directed to inſtruct them as to waſhing the Sheep, cleanſing the Wool, and every neceſſary operation that can tend to preſerve the Wool and the animals themſelves.

themſelves. Premiums of this kind would be of more real ſervice to Scotland in one year than all that have been given by the public to force the *Linen ſtaple*, ſince the union of the two kingdoms.

The ſecond article I have to mention is of the utmoſt conſequence to the Woolen Manufacture; and that is, reſpecting the *cards* made uſe of in every branch. It has for ſome time been a ſubject of complaint that moſt of theſe inſtruments uſed in Scotland have been ſuch as were deemed uſeleſs by the Engliſh, which report tends greatly to injure the manufactures of this country. Every one who knows any thing of this matter muſt be ſenſible that, when the teeth of the cards are broken or deſtroyed, it is impoſſible to make the *rowings*, as they are called, even; the thread ſuffers in the ſame manner; and when it comes to the cloth, inſtead of being even and ſmooth, as it ought to be, innumerable knots appear upon the ſurface.

Our wiſe neighbours, the Engliſh, foreſaw the bad effects that muſt unavoidably attend ſuch a circumſtance; and, for that reaſon, an act of Parliament was paſſed in the reign of Charles II. prohibiting the importation of foreign Woolen Cards, in the following words: "WHEREAS, by

by the acts of Parliament made in the third year of King Edward IV. and the thirty-ninth of Queen Elizabeth, and ſeveral other ſtatutes before that time made, it is enacted (among other things therein contained), That no cards for wool, nor iron thread (commonly called *white wire*), ſhall be imported, ſent, or conveyed into this realm of England, wherein the beſt iron thread, or wire for making wool cards is made, and by the ſaid manufacture of making and drawing of wire, and wool cards, very many poor people of this kingdom, and their families, have been employed and maintained, and the wool cards made thereof are of great concernment to this kingdom, for the good making of Woolen Cloth: AND WHEREAS, contrary to the ſaid ſtatutes, not only much foreign card wire, but alſo foreign wool cards, have been in theſe late times imported into this kingdom, and alſo within the ſame, many old wool cards are, by ill diſpoſed perſons, (for their private lucre), bought up, and the old iron-wire, of the ſaid old wool cards, being very weak, and inſufficient for the well carding of wool, is put into new leather and new boards, and ſo altered and ſold to ignorant people, for new wool cards, to their great detriment, and the endamaging of their work, carding of wool, and the cloth made thereof: By all which very great inconveniencies have been found, by experience

rience of clothiers, in their making of Engliſh cloth, which is lately much debaſed and decayed, and wherein this nation is greatly concerned, to uphold and encourage the well making thereof, in and by all ways and means, in any ways conducible thereunto: Be it therefore enacted, by the King's moſt excellent Majeſty, by and with the advice and conſent of the Lords Spiritual and Temporal, and the Commons, aſſembled in parliament; and it is hereby enacted, by the authority aforeſaid, that no foreign wool cards, or foreign card wire, or iron wire for making of wool cards, be imported into this kingdom of England, dominion of Wales, or any part thereof, nor uſed within the ſame, nor any card wire taken out of old cards be from henceforth put into new leather, and new card boards, nor any ſuch wool cards, made thereof, be put to ſale, upon the pains, penalties, and forfeitures hereafter following; that is to ſay, every perſon or perſons, who ſhall import, or bring any foreign wool cards, or foreign card wire, or iron wire, for making of wool cards, into the kingdom of England, dominion of Wales, or any parts thereof, or make any wool cards of any ſuch old card wire, as aforeſaid, or put the ſame to ſale, ſhall forfeit the ſaid wool cards, and card wire, or iron wire, for making wool cards, or the value thereof, if the ſame be not ſeized, the one half part thereof

thereof to the King's Majeſty, and the other half part thereof to ſuch perſon or perſons who ſhall firſt ſeize, or ſue for the ſame, by action of debt, plaint, bill, information, or indictment, in any of his Majeſty's courts of record at Weſtminſter, or within the county, city, burgh, or town corporate, where ſuch offence ſhall be committed, wherein no eſſoign, protection, wager of law, or injunction, ſhall be allowed or admitted.

"Provided always, that this act ſhall not extend to hinder the owners of any wool cards to cauſe them to be amended for their own uſe, or to tranſport or ſell (for tranſportation only) all their old worn wool cards, in parts beyond the ſeas, out of his Majeſty's dominions."

Though it might have been expected, that this act would have extended ſo far as to prevent the importation of theſe ſecond-hand cards; and though the act itſelf might very naturally bear ſuch a conſtruction; yet as no man, nor particular body of men, are thereby directed to put the ſame in execution, it has been a conſtant practice to import annually into Scotland, ſeveral thouſand dozen pair of ſecond-hand cards, to the very great detriment of the Woolen Manufacture; the raw material having been thereby

†

injured, by a moderate eſtimation, at leaſt ſix *per cent.*

So ſenſible were the principal Woolen Manufacturers of this country, of the great loſs the continuance of ſuch a practice muſt be, not only to themſelves, but to the buſineſs in which they were engaged, that ſeveral of them preſented a memorial of the facts to the Board of Truſtees, ſo far back as November 1773, craving that Honourable Board would recommend the ſubject of their petition to the Royal Boroughs and their commiſſioners, to apply to the legiſlature to have the prohibition actually extended to Scotland.

The above application was made at this time, in conſequence of the memorialiſts being informed, that a law was expected to paſs the then next ſeſſion of parliament, making ſundry regulations with reſpect to the manufactures of this country; and that theſe regulations were principally to be pointed out by commiſſioners employed by the Royal Boroughs of Scotland.—No notice, however, has hitherto been taken of this memorial; for what reaſon I am yet to learn. It is plain, however, that ſo great an evil requires a ſpeedy and effectual remedy, as the very exiſtence of our Woolen Manufacture, in

in a great meaſure, depends upon it.—A redreſs of this grievance would conſiderably augment his Majeſty's revenue of exciſe; as a vaſt number of hands would be employed in making cards, that would conſume annually at leaſt 2000 lib. weight of leather, which pays a duty three halfpence *per* pound.

I ſhould not have been ſo prolix on the ſubject of the Woolen Manufacture, were it not a thing of the utmoſt importance to this country, in which light, I preſume, it will be taken by every impartial reader. Many other branches of a ſecondary nature, in the Woolen way, might have been enumerated; but as they are of leſs moment than thoſe I have treated on, and ſuch as are well underſtood, I have waved a diſcuſſion of them, to give place to others that are of much more conſequence.

From what has been ſaid, I hope I have clearly demonſtrated the poſſibility, as well as the neceſſity of increaſing the number, and improving the breed of our Sheep, which is the firſt and principal object of concern, if ever we mean to make a figure in the Woolen branch.—With reſpect to the Linen, it is the height of folly ever to pretend to rival the Germans, or, indeed, to think of bringing it to ſuch a ſtate of per-

ſection as to be of national ſervice, meriting the appellation of a ſtaple commodity. The population of this country will never be increaſed by reducing the quantity of arable land, ſowing it with *lint-ſeed*, and neglecting the paſture which ought to produce Wool, but by getting people to work at the Woolen branch, and employing the land now in tillage for their ſupport. This alone can increaſe population, employ our poor, and make us rich and happy.—This will enable us to purchaſe the productions of other countries, by an interchange of commodities, without draining our iſland of caſh :—This, I ſay, independent of that great *ſtaple* the *Linen*, is able to reſtore us to our former dignity,—to diffuſe happineſs to the moſt indigent,—and prevent riots, diſcord, and debauchery, the direful effects of poverty and lazineſs.

Permit me once more to addreſs the Public at large, the Nobility, Gentlemen, Clergy, Royal Boroughs, brother Maſons, and, in ſhort, every individual, in behalf of the Woolen Manufacture: In the preſent flouriſhing progreſſive ſtate, in which it now ſtands, it would be the height of phrenzy to ſuffer it to languiſh, or be ſnatched away from us on any conditions. Let me then, for your country's ſake, your own, your families', your friends, and for the ſake of the induſtrious

trious poor, intreat one and all of you, to join heart and hand to ſupport and carry it on, in its full extent. Let us, for once, ſee our country freed from thoſe men called Engliſh Riders, who cram your country full of unprofitable commodities, ſweep off your ſpecie, and then execrate you and your country into the bargain: Let us have no more keepers of Scots Linen Halls to be venders and encouragers of Engliſh Woolen goods; a public affront to common ſenſe, and treating the convention of Royal Boroughs with the utmoſt contumely: Let all the public ſpirit we are maſter of be directed to the Woolen Manufacture and the Fiſheries: Let us, I ſay, from the ſhoes on our feet to the hats on our heads, be clothed in the manufactures of our own country. Then may we bid defiance to poverty, look down on our enemies with contempt, chaſtiſe their inſolence, and riſe ſuperiour to all thoſe calamities we have long ſuffered, through our own inactivity and tardy ſupineneſs.

CHAP. IV.

SECT. I.

Of Porter, and other Malt Liquors.

WANT of money is almoſt an univerſal complaint in this country; neither will it appear the leaſt ſurpriſing, when we conſider how very fond we are of ſending it abroad, for ſuch commodities as we could either want or manufacture at home.

I preſume I was not far wrong in my calculation, when, three years ago, I eſtimated the money remitted annually to England for the two articles only of Broad Cloth and Porter, at the enormous ſum of two hundred thouſand pounds ſterling. Concerning the former, I have already ſaid as much as may be neceſſary; and the latter is reſerved for a ſubject of diſcuſſion in the preſent chapter.

To

To affirm that the Porter-brewers in this country have arrived at the ſame degree of perfection in their profeſſion as thoſe in London, would be offering an inſult to the taſte of the public; nor, indeed, can it be thought at all practicable, ſo long as we continue to encourage the London, and cramp the genius and patriotic undertakings of enterpriſing Scotſmen.

We all know, that before this liquor be in a proper ſtate for drinking, it ſhould be kept a conſiderable time both in the caſk and bottle. It is therefore neceſſary to brew large quantities at a time, and to have a conſiderable ſtock, at leaſt a twelve-month's ſupply, on hand, before it be broached for ſale. But, can it be expected, while we are ſo partially attached in favour of London Porter, that our brewers will riſk their whole capital upon articles, the ſale of which depends ſo much on the caprice of the public, as to render it a loſing trade?

Several brewers, however, in this town and neighbourhood have, of late, done much buſineſs in this way; and though, perhaps, they have not brought Porter to the ſame perfection as the genuine London, owing, I preſume, to the cauſe above aſſigned; yet I will be bold enough to ſay it is more wholeſome, and leſs adulterated

adulterated with ſmall beer, than moſt of that liquor which is ſold in our taverns and public-houſes for London Porter. It may not, indeed, have the exact flavour; but I cannot, notwithſtanding, attribute it to the unſkilfulneſs of our brewers, nor to any deficiency of materials neceſſary for its manufacture.

I know it has been advanced, though the aſſertion cannot be ſupported by reaſon, that Porter cannot be made without Thames water. Mr Combrune, who wrote a very ſenſible Eſſay on Brewing, (and, indeed, every man of ſenſe with whom I have converſed on the ſubject), moſt juſtly ridicules this vulgar prejudice. Beſides, will any cockney take upon him to ſay, that all London Porter is brewed with Thames water?—Surely, no; when it is evident, that for one butt made from this, ten are made from that of the New River, the principal quality of which is, that it is very *ſoft*. Now it is well known, there is not *ſofter* or better water in all Britain than that with which this neighbourhood and city are ſupplied.

To maintain, then, that the people in this country cannot brew Porter equal to any made in London, either for want of ſkill, or the neceſſary materials of barley, water, hops, &c. is

is an inſult offered to their underſtandings, and propagated only by London brewers, and a few of their adherents, to ſtop the riſing progreſs of that which they find is beginning materially to affect their intereſt. Innumerable inſtances, of a ſimilar nature, might be adduced in proof; but the few following ſhall ſuffice.——

It is not many years ſince the Soapery and Glaſs-Houſes were firſt eſtabliſhed at Leith; each of which undertakings had equal difficulties and prepoſſeſſions to ſurmount, before they were brought into any degree of repute; but, by perſeverance and application, the proprietors overcame them all, and do now preſent the public with as good ſoft ſoap, and glaſs bottles, &c. as any manufactured in Great Britain. The prejudice formed againſt our ſoft ſoap was, a few years ago, much greater than that now againſt Scots Porter; inſomuch that the manufacturers were obliged, for ſeveral years, to put it, in the moſt private manner, on board of ſhips coming from London, bound to Borrowſtounneſs, at which place it was ſold as London ſoap, and met with a ready ſale. Sometimes, immediately after ſhipping it on board a Bo-neſs veſſel in Leith roads, large quantities of it were landed again at the key, and diſpoſed of to the grocers in Leith and Edinburgh, as ſoap manufactured

factured at London. As I dealt, at that time, very extenſively with many of the grocers, on occaſional interviews on buſineſs, I have been often addreſſed by them in the following manner: "Mr Loch, you may continue your ſoapery or not, as you pleaſe; but, take my word for it, you will never be able to make ſoap like this at Leith." The very identical ſoap, however, which they had been extolling, inſtead of being Engliſh ſoap, was really manufactured at the ſoapery in Leith, (in which I had a conſiderable ſhare), and had not been out of the Company's warehouſe above twelve hours.

The current of prejudice againſt Scots ſoap was ſo ſtrong and violent, that I was obliged to exert every lawful art and device to ſtem its progreſs; otherwiſe the undertaking muſt have fallen to the ground, to the great loſs of the proprietors, who had by this time ſunk large ſums of money, to eſtabliſh this valuable manufacture, which promiſed much benefit to the country, as well as to themſelves. For this purpoſe, I often purchaſed many hundred firkins on my own private account and riſk, when the ſtock of the Company on hand was very large, and likely to be affected by the great ſums of money neceſſarily advanced to pay the exciſe, and ſhipped it for Newcaſtle, where it fetched a good

a good price. My factor, who always found a ready market for it, was often told by the purchaſers, that it was better than any London ſoap they had ever ſeen.—Sometimes a part of this very ſoap ſhipped for Newcaſtle, was returned to the port of Leith, and vended there, and at Edinburgh, for Engliſh manufacture. At laſt, when its reputation was eſtabliſhed under a foreign name, the author of theſe ſheets called a meeting of the merchants, Mr William Mein, Mr George Rigg, and ſundry others, who dealt in that article, diſcloſed the facts above mentioned, produced the accompts of ſales of the ſaid ſoap at Newcaſtle, to the amount of many thouſand pounds ſterling, and entirely convinced them that the ſoap they had purchaſed at Leith for a number of years for London ſoap, was really manufactured at home. In this manner their miſplaced prejudice was removed; they became converts to their own and their country's intereſt; and, from that period, we may date the æra of the exiſtence of the Leith Company's Soapery.

The public, ever ſince, finding it in all reſpects equal to that made in England, continue to encourage it in preference to that of our neighbours, to the great emolument of the country. Whether there be any truth in the report

report of this deception having been practiſed with regard to Scots Porter, that is, of its being ſhipped at Leith, and afterwards brought back hither and ſold for *London*, I ſhall not take upon me to ſay; but my readers may depend on the veracity of the above relation concerning the ſoap.

The money ſent out of this country to London for Porter amounts to ſuch a capital ſum, that unleſs one were able to bring unqueſtionable proof, it would ſcarcely be credited. For many years paſt, the quantity brought annually into Leith, and the other parts of the Frith of Forth, exceeds thirty thouſand pounds ſterling; and it may reaſonably be ſuppoſed that Dundee, Montroſe, Aberdeen, Inverneſs, and the other parts of Scotland, would conſume twenty thouſand pounds worth more—A pretty round ſum, truly, to be paying for an article we can ſo well do without, or which we can manufacture ourſelves. I ſhould be glad to know how it fared with our forefathers who never taſted a drop of Porter? Good ſtrong ale and two-penny pleaſed them; and, at their meetings, they were as merry, and chearful over it, as their deſcendants are now over a bottle of London Porter.—It is, beſides, a very expenſive drink; and people in low circumſtances do themſelves much hurt by indulging

dulging to exceſs this piece of luxury, which is arrived to a pitch till lately unknown in this country. We have numberleſs clubs in this city, calculated for no other purpoſe than that of guzzling down ſo many bottles of London Porter as amount to the quota they are reſolved to ſpend; while, perhaps, their wives and children at home are in want of many things abſolutely neceſſary for their maintenance and ſupport.

I am far from meaning that friendly, ſocial meetings of companions ſhould be aboliſhed or given up. After the toils of the day, a little indulgence of that kind is very pardonable: but I wiſh my countrymen would ſtudy their own intereſt, as well as that of the place of their nativity, even in their convivial as well as ſerious moments, by drinking only Scots malt liquors.

I have already acknowledged that we cannot, or at leaſt do not, for reaſons before accounted for, brew Porter ſo well here as they do in London; but I dare venture to ſay, there are many perſons who make ſuch Porter as might pleaſe any Engliſh palate; and a doſe of *patriotiſm* mixed with it will make it alſo agreeable to the Scots. Out of a great number of eminent Porter brewers, I ſhall beg leave to mention the following:—Mr George Miller, St Ann's yards;

Mr James Hotchkiſs, Graſs-market; Mr Archibald Campbell, Cowgate; Meſſrs Gardener and Co. Gooſedub; the Induſtrious Company, Edinburgh; and Meſſrs Cundell and Son, and Mr Matthew Comb, at Leith.

I have formerly hinted, that the Porter drunk in our taverns and public-houſes is not genuine London Porter, but adulterated with ſmall beer. —This fact has been declared by Londoners themſelves, and others well acquainted with its true taſte. In ſhort, there is hardly a tavern or public houſe in Edinburgh or Leith, where London Porter, as they call it, is kept, but at leaſt one third of the bottle is ſmall beer, though you pay fourpence and ſixpence a bottle for this precious ſtuff. Whether the mixture be made in London, Leith, or Edinburgh, or partly in all three, is no wiſe material to the drinkers: but I am certain they pay high enough to pleaſe their corrupt taſtes; for what with the ſmallneſs of the bottle, and the quantity of ſmall-beer glutted down with the Porter, the gueſt pays no leſs than ſevenpence for every Engliſh quart or Scots chopin. Whereas, good Scots Porter, without any adulteration, can be had at threepence a bottle, and excellent ſtrong ale at the ſame price, at any public houſe in the town, both which are better worth the money than

the

the mixed traſh drunk by hundreds of dozens in a day, in and about this metropolis. It is nothing but prejudice in ſome, and ſelf-intereſt in others, that have brought this deſtructive branch of buſineſs to ſuch an amazing height.

The averſion we have to every thing made in our own country is truly alarming. Better ale, better beer or two-penny, are not to be had in any country; and that we cannot be content with theſe, and ſuch Porter as we can make among ourſelves, is really unpardonable. I am afraid we deſerve, in part, the epithet which Mr Glover beſtowed on us ſome time ago, "That we had every ſenſe but common ſenſe;" for I do think that a Scotſman who will not wear good cloth becauſe it is manufactured here, and refuſes to drink Porter becauſe it is brewed in or about Edinburgh, really verifies that gentleman's aſſertion, and proves himſelf inimical to the welfare of his country.

I think, however, that this folly is wearing away very faſt, there not having been near ſo great a quantity of London Porter imported theſe three years as formerly; nay, I find on inquiry that it leſſens every year. Indeed, if we were to reflect ſeriouſly on the conſequences attending it, we ſhould put an entire ſtop to it,

by an unanimous reſolution to drink nothing but home-brewed malt liquors. It is only about two years ago, that about twenty public-ſpirited merchants and tradeſmen laid out a conſiderable ſum of money in purchaſing Scots Porter from the brewers, who ſell it again to the inhabitants in bottles at two ſhillings and threepence per dozen, ready money, the bottles to be returned. Since the above time their numbers are increaſed, and now there is ſcarcely a corner in Edinburgh or its environs, where it may not be purchaſed of an excellent quality, at the above price. In ſhort, by that ſpirit of patriotiſm, which ſeems to influence moſt ranks of people, there is not at this day one tenth part ſo much London Porter imported at Leith as there was ſeven years ago.

This public ſpirit is not confined to Edinburgh alone; for it is well known that Scots Porter meets with a ready ſale all over the country; and it is much to the intereſt of the landed gentlemen and farmers to encourage it, as the price of barley is moderate. It is an undoubted fact, that, a few years ago, one hundred thouſand bolls of barley were annually made into malt, and brewed in London for the Scots conſumpt. What an enormous quantity!—I hope this will never be the caſe again, and that the farmers and

and landholders, eſpecially thoſe in our fine barley countries, will exert their utmoſt efforts to promote the ſale of Scots malt liquors, and put a final ſtop to a trade ſo incompatible with the intereſt of the country in general, and theirs in particular.

I have often heard the landed gentlemen, whoſe rents were moſtly paid in barley, complain that the price of that grain was much too low. But how ſhould it be otherwiſe, ſo long as thoſe very perſons who make the complaint continue to drink and give countenance to nothing but London Porter. An honeſt brewer buys your barley, makes it into good malt, and then brews excellent ale, porter, and ſmall beer; and when he has expended all his money upon you, and exerted his utmoſt ſkill to pleaſe the taſte of the public, you landholders and barley merchants abſolutely refuſe to purchaſe from him the malt liquors uſed in your families, and ſend your ready money to London for Porter. —A fine example indeed, to induce theſe and other injured and neglected members of ſociety, to ſend to London for their clothes of all kinds, their houſehold furniture, and, in ſhort, every thing of Engliſh manufacture, which would be nothing but a juſt retaliation. Depend upon it, ſo long as you continue in this unpopular practice, the price of barley will be low, which

might be greatly advanced by adopting a different mode of conduct.

Beſides, our brewers are capable of affording better drink, for the ſame money, than the Engliſh can poſſibly do; and that for two reaſons: *Firſt*, Becauſe they pay juſt double the duty for their malt that we pay for ours; and, *Secondly*, Becauſe they pay at leaſt triple the price for their coals. Theſe are two principal articles in the brewing buſineſs, in which we have a manifeſt ſuperiority, as well as in many others that might be mentioned; but which, alone, are ſufficient to convince any rational perſon, that we may be ſupplied with as good wholeſome drink at home, and at a cheaper rate than any we can import from England.

I could particularize many inſtances to prove the truth of this aſſertion, from Edinburgh, Glaſgow, Dundee, Leith, and other places; but I ſhall confine myſelf to one at preſent; and that is, Mr Hugh Bell of this city. This gentleman occupies a moſt extenſive brewery, and, without partiality to the manufactures of my own country, I may ſafely aver, that no brewer in Great Britain furniſhes better malt liquors of the different kinds and prices than he does. His ſtrong beer, or ale, known by the name of *Bell's Beer*,

Beer, is famed both at home and abroad. His ſmall beer, too, is of an excellent quality, and, if properly managed, will keep twelve months, being but little inferiour to that which is drunk here in public-houſes, under the appellation of *London Porter*. Private families may be ſupplied with it, being good, wholeſome drink, at a little more than a penny a bottle. Mr Bell has not yet attempted to brew Porter, his demands for different ſorts of ale being very conſiderable. This gentleman is a ſingular proof of our being acquainted with the great myſtery of brewing malt liquors; for there is not a kind of ale of the leaſt repute in England which Mr Bell does not imitate; nay, I need not ſay imitate, for he excels; his ale being preferred to the famous Burton, or any other Engliſh ale, both at home and at foreign markets.

This being an undeniable fact, I ſhould be glad to know wherein conſiſts the inexplicable ſecret of brewing Porter with equal ſucceſs? The inferiority of ours to Engliſh has already been accounted for; which is, the want of proper public encouragement, by which our brewers cannot brew the quantity, nor give it the proper age, the Londoners do. Give them your countenance, and I will be anſwerable for the event. Let the tables be turned on our neighbours;

bours; let the numerous Porter clubs in this city, whoſe members will not drink our Porter for no better reaſon than becauſe it is *Scots*, reſolve to drink none, provided it be *Engliſh*; and then you will have the pleaſure of drinking as good Porter of Scots manufacture, as ever was brewed in the city of London.

Theſe clubs are compoſed chiefly of merchants and mechanics. I ſhould therefore be glad to know how they would reliſh it, if the noblemen and gentlemen of property were to withdraw their buſineſs from them becauſe they were Scots merchants, Scots wrights, Scots ſhoemakers, &c. What juſt reflections would they not have, and how much would they not be offended to be told, that none of them underſtood their buſineſs ſo well as the * Engliſh? This, however,

* *I have always averred, that my countrymen have genius equal, if not ſuperiour, to any in Europe; a ſtriking inſtance of which I obſerved ſome time ago at Keith-mill. The ingenious Mr* Thomſon, *at that place, has made great improvements in moſt of the materials and utenſils in huſbandry; of whom all the neceſſary articles, conſtructed upon the ſimpleſt principles, can be got upon the moſt reaſonable terms, and whoſe inventive genius entitles him to the patronage of the public.*

however, is the very treatment theſe ſame perſons give to the brewers, and woolen manufacturers of their own country. Let ſuch apply this ſtriking ſimile home to themſelves, and they will immediately ſee the injuſtice of not giving proper countenance to their own manufactures. None need be aſhamed to do ſo; nay I am inclined to think it is a duty incumbent on every perſon, however exalted may be his ſtation in life.

In the laſt place, I beg leave to inform my readers, that there are ſeveral gentlemen of character employed in the diſtilling and compounding of Scots ſpirits, not inferiour to any made in England. Mr William Finlay at Croftangry, Abbey; Mr William Eſpie in the Lawnmarket; and Meſſrs Gavins at Main-point, Edinburgh, are all excellent in their profeſſions. Now, as the people will have ſpiritous liquors, why not purchaſe them of our countrymen, rather than ſend your money to London, to enrich *Sawbridge*, and ſuch *worthies?* To my certain knowledge, many thouſand pounds a-year are ſent to England for theſe commodities, which can be had at home equally as good and as wholeſome. This political vice, with many others, I wiſh to ſee extirpated both root and branch, out of this impoveriſhed kingdom, being very

very noxious to its wealth and proſperity; and, like *Aaron's ſerpent*, threatening to ſwallow up the little patriotic virtue remaining among us.

I cannot conclude this ſection, without mentioning, to the honour of the gentlemen, merchants, &c. of Glaſgow, Dundee, and ſeveral other towns, that they give due encouragement to their own Porter, and every other article manufactured among themſelves; eſpecially the inhabitants of the town of Glaſgow. It is about eighteen months ſince I took the liberty to addreſs them *generally* (the members of the Cape Club there in particular) on this head; when the latter firmly reſolved to promote the ſale of home-brewed Porter in preference to that of London, although it might not be ſo good for ſome time. At this period, no leſs than thirty-five public houſes in Glaſgow drew nothing but London Porter; but the patriotic reſolution of this worthy ſociety influenced the whole town, and occaſioned their number to diminiſh very faſt; and I have now the heart-felt ſatisfaction to declare to the world, that there is not at this time a ſingle houſe in Glaſgow that keeps Engliſh Porter; nothing but Scots is drunk in public and private. On the third of October laſt, I had the pleaſure of meeting a great number of reſpectable members of this club, when my heart

heart was elated on hearing of the ſucceſs that had attended their laudable endeavours. In ſhort, I was more happy, and felt a greater zeſt in drinking a bottle of Scots Porter with theſe public-ſpirited gentlemen, than I could poſſibly have been to drink Champagne or Burgundy with the firſt nobility in the kingdom, whoſe opulence might have lulled patriotiſm aſleep, and rendered them inſenſible of their country's welfare.

Nothing but firmneſs and reſolution is required to put Scotland in a flouriſhing ſituation. We ſhould one and all of us reſolve to wear no clothes whatever, nor drink no malt liquor, nor compound ſpirits, but what are of the manufacture of Scotland; otherwiſe we counteract the intereſt of ourſelves, our families, our friends, and connections, in ſhort of that country which gave us exiſtence. What a glorious inſtance we have of the public ſpirit of that ever memorable man, Dean Swift! That gentleman *alone*, we all know, ſaved his country from ruin, in the caſe of Wood's halfpence: For, tho' Wood obtained a patent to coin no leſs a ſum than one hundred and eighty thouſand pounds worth of them, by which he would have acquired exorbitant gain, and proportionally impoveriſhed the nation; and, tho' he was long ſupported by thoſe who proſtituted

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the higheſt delegated authority to the vileſt purpoſes, the Dean of St Patrick's prevailed againſt their combined force. In the character of a *Draper*, this gentleman wrote a ſeries of letters to the people, urging them not to receive this copper money; the effect of which was, that Wood was at length compelled to withdraw his patent, and his money was totally ſuppreſſed.

I have mentioned this ſtriking inſtance of the power which *one* man may acquire, when engaged in the cauſe of his country. It is alſo a convincing proof of the certainty of his ſucceeding, ſo long as the great ſpring of his actions are directed by the true principles of public ſpirit.

This obligation, however great, was not the only one which the kingdom of Ireland experienced from the writings of Dean Swift. That great politician and patriot conſidered the improvements of the manufactures of his country as the greateſt bleſſing it could enjoy. To this object, a great part of his time, as well as his money, were appropriated; nor did he labour in vain, or loſe his reward. Acclamations, and prayers for his proſperity, attended his footſteps wherever he paſſed: He was conſulted in all points

points reſpecting domeſtic policy in general, and the trade of Ireland in particular: But he was more immediately looked upon as the legiſlator of the weavers, who frequently came in a body, conſiſting of fifty or ſixty chieftains of their trade, to receive his advice, in ſettling the rates of their manufactures, and the wages of their journeymen. He became the idol of the people of Ireland, to a degree of devotion that, in the moſt ſuperſtitious country, ſcarcely any idol ever obtained. Nor is this to be wondered at, when it is remembered, that he gave above half his yearly income in private penſions to decayed families, and kept five hundred pounds in the conſtant ſervice of the induſtrious poor. For this purpoſe he uſed to lend five pounds at a time, and took the payment back at one ſhilling a-week, which was obſerved to do them more ſervice than if he had given it to them altogether, as it obliged them to work, and at the ſame time kept up this charitable fund for the aſſiſtance of many others.

I have been the more particular with regard to this great and truly good man, in hopes that others may be induced to imitate ſo worthy an example. I know well, that the clergy of this country are not in a capacity to ſupply the neceſſities of the induſtrious mechanics in the man-

ner that Mr Swift was. I do not think, however, it would in the ſmalleſt degree derogate from their character, were they not only to recommend induſtry and virtue from the pulpit, but even adviſe their hearers to encourage the manufactures of their own country in preference to every other. Dean Swift ſaid, upon a particular occaſion, that he never preached but twice in his life; and then they were not ſermons, but pamphlets. Being aſked, what the ſubject might be? he replied, They were againſt Wood's halfpence; meaning, no doubt, that he had never preached when the good effects of his ſermons ſo evidently appeared as upon that occaſion.

At the ſame time that Dean Swift was thus ſolicitous in advancing the manufactures of his country, he was equally ſtudious in diſcharging the functions of his holy office with piety and devotion. I therefore flatter myſelf, that the clergy of this country, for whom this paragraph is principally intended, will not take it amiſs that I recommend that gentleman as a pattern worthy of their imitation. Much ſervice may be done by their means; and, I hope, the regard they have for their native country will be a ſufficient inducement.

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One word to the ladies of this metropolis, with which I propoſe to end the preſent chapter. I cannot help mentioning to their honour, that many of them will admit no other Porter to their tables than that brewed in Scotland. Thus, while they ſtudy the intereſt of their huſbands and families, they promote the welfare of their country, and ſet a laudable example to thoſe whoſe province it is to preſide at the head of a family —Their huſbands can never think of uſurping their natural prerogative of managing within doors, eſpecially when it is diſtinguiſhed by a proper œconomy. And if ſuch a conduct ſhould have the effect of diveſting their huſbands of that ill-placed prejudice ſome of them have entertained againſt Scots Porter, the ladies will juſtly be intitled to (and I hope they will all ſtudy to deſerve) the merit of eſtabliſhing a valuable manufacture in this country, by the moſt forcible and convincing arguments.

CHAP. V.

SECT. I.

Of the Thread, Lace, and Silk Manufactures.

MANY perſons might be led to imagine, from the warmth with which I have eſpouſed the Woolen Manufacture, that I laid no ſtreſs at all on the Linen, nor even on the article of Thread: but it may be remembered, that, in the ſecond chapter of this book, I recommended attention to a particular branch of the Linen Manufacture, which, I am perſuaded, might be proſecuted with great advantage. And with regard to the manufacture of white and coloured Thread, the Silk branch at Paiſley, and even the working of Lace, as they give employment to a vaſt number of hands, always find a ready market, and keep and bring money into the country, they are objects well worthy the attention of the public.

I ſhould have been glad to have been able to thank the author of two or three judicious eſ-

ſays

ſays inſerted in the Weekly Magazine, containing remarks on the ſtate of the above manufactures in and near Paiſley, from which I am enabled to preſent my readers with a flattering view of their importance to this nation; but as he thought proper to ſuppreſs his name, uſing only the ſignature of W. C. it is only under theſe initials that I can teſtify my approbation, and requeſt him to pardon me for the liberty I have taken with his ſerviceable lucubrations.

The firſt of theſe eſſays appeared in December 1775, in which, to demonſtrate of what conſequence the manufactures of Thread and Lace are of to Scotland, we are told that, upon a moderate computation, five hundred machines were taken up at that time in twining Thread; —that each machine will employ, on an average, thirty-ſix induſtrious poor people, and, conſequently, that eighteen thouſand workmen were engaged at them, who thereby gain a comfortable ſubſiſtence for themſelves and families. The value of Thread manufactured, rating each machine at three hundred and fifty pounds, amounts to one hundred and ſeventy-five thouſand pounds annually; from which if we deduct a ſmall ſum for lint-ſeed and Dutch flax imported, the remainder is a clear gain to the nation,

as there is juſt ſo much leſs imported from other nations.

This patriotic gentleman obſerves, that the manufacture of Thread and Lace may be ſtill farther augmented and improved, as there are large quantities imported hither from France and Holland, notwithſtanding the high duty impoſed; and that this country, in which the fabricating of Thread is daily approximating to perfection,—where proviſions are cheap, and where the people are juſt now rouſed from a deep lethargy, is more proper for the Lace manufacture than England, as well on account of the above, as other ſuperiour advantages hereafter to be particularized.

The Honourable Board of Truſtees, on the application of the above-mentioned gentleman, about three years ago, granted a ſalary to an experienced perſon who was regularly bred to the Thread and Lace buſineſs at Liſle, in French Flanders, for the purpoſe of teaching the French method of manufacturing threads; and another to his wife for inſtructing girls in the method of working Lace. Previous to their appointment, the following queſtions were put, tending to inveſtigate with what degree of ſucceſs the attempt might be attended.

Queſtion 1.

Queſtion 1. Is the yarn of this country of ſuch a quality as Liſle Thread may be manufactured of it?

Anſwer. Scots yarn anſwers the purpoſe of making Liſle Thread every way as well as French yarn; and were the Board of Truſtees to give a ſmall premium to ſuch as would produce the greateſt quantity of yarn of their own ſpinning, of the beſt quality, and of certain ſpecified griſts, the ſaid premiums to be diſtributed to ten individuals in each ſheriffdom or county, where any great quantity of yarn is ſpun, there is a ſtrong probability that a ſufficient quantity, and of ſuch a quality, would be produced in a few years, as would enable the manufacturers to ſupply the London market with Liſle Thread.

Q. 2. What is the fineſt number you have manufactured of Scots yarn?

A. The fineſt I have manufactured in this country, of Scots yarn, is No. 300.

Q. 3. Can the ſaid Thread be manufactured upon equal or lower terms with that in French Flanders?

A. The expence of making Thread in this country, every thing conſidered, is almoſt the ſame as at Liſle. Here, indeed, women are for the moſt part employed,—there only men.

Q. 4. Will

Q. 4. Will Scots yarn anſwer the purpoſe of making Lace Thread? If not, what yarn is neceſſary?

A. At preſent the yarn ſpun in this country cannot in general be applied with ſucceſs to this uſe; yet ſmall quantities may be found of which the coarſer numbers may be made; but French yarn muſt be uſed for the finer.

Q. 5. Which is the fineſt number manufactured under your direction ſince you came into this country?

A. The fineſt Lace-Thread manufactured by my direction is No. Y. which turns out in the ounce way to be No. 200. and in the Liſle way No. 680.

Q. 6. What proportion does the workmanſhip bear to Lace Thread?

A. The charge of workmanſhip, upon the neareſt calculation, is thirty *per cent.*

Q. 7. Is there any other ſpecies of Thread manufactured in French Flanders, and what are the names by which they are commonly called?

A. There are various other kinds, ſuch as liſh Thread, embroidering ditto, forty-eight ditto, coloured ditto, ſtocking ditto, ſilk ditto, barbers

barbers ditto, three, four, and five ply ditto, for ſails and nets; white and grey ditto, &c.

Q. 8. Is there any regulation as to the number of threads, or length of the ſkein or hank, enforced by law in France? and what are the penalties in caſe of frauds?

A. There was a regulation formed and enforced in the year 1733; at which time they were in danger of loſing their trade by reaſon of frauds committed. Every manufacturer is obliged to conform himſelf to the ſtandard, under a penalty of 500 livres for the firſt tranſgreſſion, 1200 for the ſecond, and for the third he is hindered from doing any buſineſs for a whole year, and all his ſubject is ordained to be confiſcated at the inſtance of the crown.

Q. 9. What time will it take for a girl of ordinary alertneſs to learn the working of Lace? and at what age may ſhe begin?

A. Four or five years are neceſſary for that purpoſe; the proper age is nine or ten.

Q. 10. What are the higheſt and loweſt prices of Lace *per* yard, which you are able to manufacture?

A. We can manufacture Lace from fivepence to five pounds *per* yard.

Q. 11. What

Q. 11. What kinds of Lace can you manufacture?

A. French, Mechlin, Bruxelles.

Q. 12. What method, in your opinion, would be the beſt to introduce and eſtabliſh that branch in this country?

A. The moſt proper would be for the Truſtees for Fiſheries, Manufactures, &c. to give proper encouragement to two or three miſtreſſes, whom they ſhall judge duly qualified, for teaching the different kinds of Lace manufactured in France and England, and oblige them to take girls from among the poorer claſs, who will moſt likely follow that buſineſs for a ſubſiſtence; even ſome might be picked out of different hoſpitals, and the miſtreſs to have the benefit of their work for five years. The ſchools ſhould be under the direction of the Truſtees.

Q. 13. What wages will a girl be able to earn when ſo taught to work Lace?

A. She will be able to get tenpence or a ſhilling *per* day.

The inferences deducible from the above premiſes demonſtrate, that the Thread and Lace manufactures (eſpecially the former) are of no ſmall importance to the welfare and proſperity of

of Scotland, in which light they have been conſidered by the Honourable Board, who have generouſly granted their aſſiſtance to further their progreſs by well-timed premiums, and the engagement of ſkilful overſeers; by which the great obſtacles that prevented our countrymen from ſucceeding in them, ſo far as might enable us to compete with the Dutch and French, are now entirely removed, as well as the common received opinion, that we were not able to manufacture theſe articles on the ſame terms with our rivals. Nothing could be more prepoſterous than the latter notion, when it is conſidered that here we employ moſtly women, there only men; and that though wages may be nearly on a par, the price of vivres are conſiderably in our favour.

Now, although the Honourable Board of Truſtees have exerted themſelves in promoting and encouraging a ſpirit for improvements in theſe and other branches, agreeable to the intention of the inſtitution, yet there is ſufficient room left here, as well as in the Woolen Manufacture, for other acts of munificence. Among the reſt, ſmall premiums, as was before hinted, ought to be given to thoſe who ſpin the beſt yarn. It has long been a ſubject of complaint with the manufacturers, that but ſmall quantities

of

of good yarn are brought to market. One reaſon for this is, that ſpinners, without attending to the quality of their flax, ſpin it of a particular griſt, not conſidering that unleſs it be of a good quality, and well dreſt, it will by no means anſwer the purpoſe of making fine yarn, which in this caſe is both brittle and uneven in the thread. Another reaſon is, the aukward way they take in putting the flax round the rock ſo as to draw the flax out, not by the end, which is the moſt natural and expeditious method, but in doubles. This is the principal reaſon that our Scots yarn is ſo far from being of ſuch an even thread as that made in France: But if premiums were granted to ſuch as, conforming to that method, ſhould ſpin the greateſt quantity of the beſt quality, the ſimplicity of the operation would ſoon make it univerſally prevail.

There is one practice too common among the manufacturers of Thread, which ultimately promiſes no advantage to them or the trade, and which practice, if allowed to continue, will prove deſtructive to their general intereſt. My friend and I are both of opinion, that it ſhould be remedied; and that the evil falls under the cognizance of the Honourable Board, who ought to interpoſe their authority. For this purpoſe, a memorial and petition was preſented to that reſpectable

reſpectable body in January 1771, ſetting forth, that many manufacturers had deviated from the former practice of making up ounce threads in hanks or ſkeins of one yard circumference, and forty threads in the ſkein; and of ſtitching or pound threads in hanks or ſkeins of one yard circumference, and twenty threads in the ſkein; and that great numbers made threads, and ſent them to the market without ſtamping them with their names, and the place where made. Their words are: "That notwithſtanding the obvious utility of theſe general rules for preventing frauds, they have been broken through by ſeveral manufacturers in Scotland, who, to humour ſome cuſtomers, or for *other reaſons*, have reeled, and continue to reel their ounce threads, or part of them, upon a reel of but thirty-four inches in circumference; and have put but thirty threads in the ſkein, tho' there are ſome who put thirty-five, and others thirty-ſix. And that the ſame undue practice of curtailing the length and tale has been introduced in that ſpecies of thread called ſtitching or pound threads, which were in uſe to be reeled, and are yet generally reeled, by a reel of ſeventy-two inches in circumference, and tied up with twenty threads to the ſkein, but which ſome manufacturers in Scotland now reel by a reel of ſixty-eight inches in circumference, and

tie up but ſeventeen or eighteen threads to the ſkein, &c."

The above memorial was ſubſcribed by thirty-eight manufacturers; in conſequence of which, the Board of Truſtees publiſhed a regulation for ounce threads, the hank or ſkein to contain one yard circumference, and forty threads; ſtitching or pound threads, the hank or ſkein to contain two yards circumference, and twenty threads; Liſle threads, the hank or ſkein to contain twenty-ſix inches circumference, and twenty-four threads; and that the maker's name, and place where made, be ſtamped upon the cover of the parcel of thread, or upon a piece of paper properly and ſufficiently affixed to it.

Upon the 23d June 1772, a repreſentation and memorial was preſented by others to the Honourable Board. The repreſentation was ſubſcribed by fifty perſons, in which they expreſs themſelves thus: "That they readily admit that frauds ſhould be prevented by all legal and prudent means; and this, to the conviction of every impartial conſiderer of the matter, will be effectually done, by obliging all manufacturers to mark upon their threads (under the penalty of being ſeized) their names and places

places of abode, the length of the ſkein, and the number of threads contained in it. They beg leave to aſſume, as an unqueſtionable maxim, that every manufacturer may warrantably make up his threads of ſuch length, and with ſuch number of threads in a ſkein as his employer ſhall order, provided only he mark his goods as above. They expreſs their willingneſs, if the Truſtees ſhall be pleaſed to recal their order, to acquieſce in the following regulation for one year, till it ſhould appear how their employers would reliſh *any whatever, viz.* That all ounce threads be made up in twenty, thirty, or forty threads to the ſkein; the length to be a yard, and all to be marked as above. They contend in their memorial, that retailers cannot afford to give one ſkein for a halfpenny; and that if they be not ſupplied with Scots Thread of twenty or thirty threads in the ſkein, they will purchaſe Dutch or French Threads; and that this reſtriction in Scotland, and not in England, will remove the Thread manufacture to that part of the Iſland."

After this repreſentation and memorial was laid before the Truſtees, every manufacturer conſidered the regulation publiſhed as departed from, becauſe no means were fallen upon to enforce it; therefore, every manufacturer now

thinks himſelf at liberty to reel his thread at what length, and to put what number of threads in the ſkein, he finds moſt for his intereſt.

The general demand for ounce threads is for ſkeins a yard long, with thirty or forty threads; but deſigning men think it their intereſt to make up part, or the whole of their threads deficient both in length and tale; by which means the uſer is impoſed upon, the prices reduced to the manufacturer, and the ſtocks of fraudulent dealers increaſed, at the expence of the honeſt and conſcientious. The conſequence of all this muſt be, that the uſers, finding themſelves impoſed on in threads of Scots manufacture, will call for threads of a foreign fabric, upon which they can depend for uniformity both as to length and tale, in every different ſpecies. There is the utmoſt neceſſity for a regulation to be enforced, otherwiſe the certain ruin of this valuable branch will enſue. The Truſtees have received every information neceſſary as to what that regulation ought to be, and we look up to them in earneſt expectation of their interpoſition. If a Britiſh act be neceſſary, are not they the moſt proper perſons for originating and carrying it through?

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The two kinds of threads particularly mentioned in the queries, namely, Liſle and Lace threads, are capital branches, neither of which have been carried on to any great extent in Britain. However, it is generally believed, that more of theſe kinds is imported than the amount of all the Threads manufactured in Scotland. That the firſt of theſe can be manufactured of Scots yarn is ſhewn from experience; for it is an undoubted fact, that a conſiderable quantity has been made in the town of Paiſley, equal, if not ſuperiour to French Thread, both as to quality and fineneſs. With regard to Lace thread, before Scots yarn will anſwer for it, improvements muſt be made in the raiſing, watering, dreſſing and ſpinning of the flax.—As there is a large manufacture of Lace in England, and ſome ſmall beginnings now in Scotland, it would be greatly to the intereſt of the country to make it of French yarn; and even in this way, there is 30 *per cent.* on the workmanſhip, beſides the profit. This branch, if once properly eſtabliſhed in this country, would be a valuable acquiſition to thoſe we have already embarked in it, and give bread to thouſands of induſtrious people.

The gentleman before alluded to has been at incredible pains more than once to aſcertain

a ſtate of the Linen, Thread, and Silk trades carried on in the town of Paiſley, and that with a degree of exactneſs that does honour to his reſearches. It muſt be very flattering to every well-wiſher to his country, to have ſet before him the amazing progreſs made in the above branches in a few years, from which we may truly ſay, that Paiſley can no longer be looked upon as an inconſiderable, unimportant place, but as a large, flouriſhing, manufacturing town.

At what time the Linen branch was firſt eſtabliſhed at Paiſley is difficult to determine; one thing is certain, that, previous to the union of the two kingdoms, it was only a mean and obſcure village, famous only for its abbey, prior to the reformation a ſeat of learning. At the union a ſmall manufacture was carried on; but the looms (which were chiefly employed in weaving Bengals, in imitation of ſtripped muſlins,) did not exceed a hundred. A free trade to England and the foreign ſettlements being opened, the inhabitants enlarged their views, and extended their buſineſs. Check handkerchiefs were introduced, in which, for many years, they ſucceeded very well; theſe gave way to *light goods* of all kinds, ſuch as plain, ſtripped, ſpotted, and figured clear lawns, bordered and ſpotted napkins, thread, gauze, &c.

&c. When they had arrived at this pitch in manufacturing, the mode of which changed with the faſhion of the day, their invention had full ſcope in finding out new patterns, and new modes of working; nay, even fabrics entirely new became a ſtudy, in which he who ſucceeded beſt had the quickeſt ſales and the largeſt profits. Hence aroſe a keen emulation, and the ſucceſs was in proportion. Trade now made a rapid progreſs, until it arrived at its preſent perfection. As the ſame cauſe ſtill operates, it will produce the ſame effects; and farther improvements may be made yearly. In the branches ſpecified, the Paiſley manufacturers excel all others in this country in every thing that depends upon fancy.

In the year 1759, a manufacturer made trial of ſilk gauze, in imitation of the Spittalfields manufacture. Some time after, others having made the like trial, the appearance of the goods in the London market induced a copartnerſhip in that city to eſtabliſh this branch in Paiſley. Never could there have been a more ſeaſonable time for their purpoſe. A circumſtance happened which made the attempt ſucceed, crowning their moſt ſanguine expectations with the wiſhed-for ſucceſs; which was, the death of the late king. Before this the thread gauze had been in vogue; but a general mourning enſuing, and Indian muſlins

muſlins being uſed for that purpoſe, this in a great meaſure put a ſtop to the Paiſley trade. On account of the ſtagnation in this branch, a number of workmen were thrown out of employment, which circumſtance, however, was of advantage to the London company, as they found hands ready, and inſtantly engaged them. The place was well ſuited to a branch in which ſo much invention was neceſſary, and accordingly it was introduced upon a larger ſcale than it ever had been before. It ſoon gained a preference to Spittalfields, as living was much cheaper, and wages conſiderably lower.

In the year 1766, October 30th, when an application was made to Parliament for an additional duty upon French cambricks and lawns, which was accordingly obtained, an exact liſt of the number of looms employed in Paiſley was taken: The report ſtands thus; linen looms 855; ſilk ditto 702; thick work ditto 45; empty ditto 165.—Again, in the year 1773, December 20th, another exact liſt was taken. At this time there was a general ſtagnation in the Linen branch throughout Britain and Ireland. Some relief was petitioned for from Parliament; but the bill miſcarried in a committee of the Houſe appointed to examine the ſtate of the Linen manufactures in Britain and Ireland, where it was rejected by a ſmall

a ſmall majority. The report taken at that time as to Paiſley ſtands thus: Linen looms 557; ſilk ditto 876; ribband ditto 155; thick work ditto 66; empty ditto 579.

In the above calculations it ſhould be obſerved, that thoſe who were appointed to make out the above liſts confined themſelves wholly to the town and ſuburbs; whereas the ſtate taken in April 1776, by the fore-mentioned ingenious gentleman, with which you are now about to be preſented, includes thoſe which are employed by the manufacturers of Paiſley, both in town and the country adjacent; and the calculation of theſe branches is rather a diminution than an exaggeration of their real number.

State of the Linen Branch in 1776.

The number of weavers employed in working Linen amounted to	1500
Each man, upon a moderate calculation, will uſe 200 ſpindles of yarn; ſo that 1500 weavers will work up	300,000
One fourth of which is ſuppoſed to be imported, or foreign yarn; therefore deduct - -	75,000
The remainder is (ſpindles)	225,000

Now,

Now, 225,000 ſpindles of yarn, allowing to each ſpinner 1 ſpindle *per* week, will afford work to (men)	4327
The number of winders, clippers, and draw-boys, are ſuppoſed to be	700
To each 20 men an overſeer,	75
Bleachers, and dreſſers employed in whitening,	300
For making ſpinning wheels, weaving looms, reeds, twine for heddles, and other implements for ſpinning, manufacturing and bleaching,	273
The number of men employed in the whole is	7175

Beſides the above number, this manufacture employs ſeveral hands in raiſing and preparing the flax, yarn-gatherers, carters, &c. of which a juſt idea cannot be formed. Now, rating the produce of 1500 weavers at 90,000 pieces, reckoning 10 yards in the piece at one ſhilling and ſixpence per yard, the average amount is 67,500l.

State

State of the Silk Branch in 1776.

The number of weavers employed in working Silk was not leſs than	2500
Winders, warpers, clippers and draw-boys, and others neceſſary in the various parts of the Silk manufacture,	2500
The whole number of hands employed	5000

Theſe 5000 workmen, ſuppoſed at an average to earn 5 s. *per* week, the ſum paid for wages will be	£. 65,000
Each ſilk loom will produce in value yearly 70l. the whole then will be	£. 175,000

From the above ſtate it appears that the Linen and Silk Manufactures in the town and neighbourhood of Paiſley, employ at leaſt 12175 induſtrious poor, beſides ſuch of their families as are unable to work, and that in value they amount to £. 242,500; to which if we add the Thread branch likewiſe, in which there are 100 machines occupied, rating the amount of each machine at £. 350, and conſequently the whole at £. 35,000, the intire value of the manufactures

tures produced in one year is £. 277,500, and the number of perſons employed 15,775.

In December 1777, this gentleman preſented the public with another eſſay, containing a freſh eſtimate of the manufactures carried on in and near Paiſley; in which eſſay he expatiates on the cloſe connection ſubſiſting between the landed and trading intereſts, occaſioned by the late *Corn Bill*, and alſo points out how alarming the idea of its paſſing was to trading people in general, the iſſue of which would have produced a faſt declenſion of thoſe very manufactures which are the vitals and ſupport of this country.

The Linen trade, ſays he, claims ſome attention, as it may be conſidered next to the ſtaple manufacture of Scotland, and had ſome exiſtence in this place before the union. The whole produce of this branch, if we deduct from the quantity of yarn uſed one fourth, and the price of lint ſeed imported, is the equivalent for labour and profits. That we may trace the gradual progreſs of this trade ſince the 1ſt Nov. 1743, with ſome preciſion, I ſhall preſent you with an abſtract account from the ſtamp maſters'-books, who make their report upon oath every year to the Honourable Board of Truſtees.

1ſt Nov.

1ſt Nov.	1ſt Nov.	Yards		L.	S.	D.
1743 to	1744	353,407	value	15,886	15	10
1747 —	1748	413,660	——	23,671	19	7
1757 —	1758	649,998	——	43,665	8	11
1767 —	1768	529,022	——	54,664	12	11½
1776 —	1777	1,194,639½	—	82,555	4	0½

The weavers employed in the Linen are not under - -	1600
Each man, upon a moderate calculation, will uſe 200 ſpindles of yarn.	
So that 1600 workmen will conſume	320,000
One fourth of which is ſuppoſed to be foreign; therefore deduct	80,000
The remainder is (ſpindles)	240,000
240,000 ſpindles of yarn, allowing to each ſpinner one ſpindle *per* week, will give work to (women)	4615
The number of winders, clippers, and draw-boys, is ſuppoſed to be	800
To each 20 weavers an overſeer	80
Bleachers, and dreſſers employed in whitening	320
In making ſpinning-wheels, weaving looms, reeds, twine for heddles, and other implements for ſpinning, manufacturing, and bleaching,	280
The whole number employed is	7695

State of the Silk Branch in November 1777.

The number of weavers employed in working Silk, from 1ſt Nov. 1776, to 1ſt Nov. 1777, upon an average, was not under - - -	3600
Winders, warpers, clippers, draw-boys, and others neceſſary in carrying on the Silk manufacture; add	3400
The whole number employed is	7000
Theſe 7000 will earn, upon an average, 5s. *per* week; the ſum is	£.93,600
Each loom will produce in value yearly 70l. which amounts to	252,000

State of the Thread Branch in November 1777.

The number of machines for twining amount to 100.	
Each machine, upon an average, will uſe 1600 ſpindles of yarn, ſo that 100 will conſume 160,000 ſpindles.	
160,000 ſpindles of yarn, allowing to each ſpinner 1 ſpindle *per* week, will afford work to (women) - -	3076
Each machine gives employment to 6 in twining, twiſting, bleaching, making up, &c. - -	600

Rating

Rating each ſpindle at 4s. 9d. value, in manufactured Thread, the amount is, - £. 38,000

The whole amount of Linen, Silk, Thread, of finiſhed goods, from 1ſt Nov. 1776, to 1ſt Nov. 1777, is not under - £. 372,555 4 0½

The number of labouring poor employed by means of the manufactures eſtabliſhed in Paiſley, is 18,371; beſides their children and ſervants ſupported by them.

The Silk gauze was not ſo much as attempted before 1759; but the price of vivres, and, conſequently, of labour, being conſiderably lower in this neighbourhood than at London, where it was firſt eſtabliſhed, and the mode of working bearing ſo near an affinity to the Lawn branch, induced ſome manufacturers from London, and others who reſided here, not only to ſhare but to command the trade, notwithſtanding every exertion the Spittalfield manufacturers could make; but then, whenever the price of labour ſhall become equal in this place to that in Spittalfields, and meal, the chief ſupport of the poor, be conſiderably increaſed in value, we muſt neceſſarily expect to loſe this valuable branch: In ſhort, nothing can prevent its being carried

on wholly in that place, but that the goods are fabricated cheaper here than there.

With regard to the Lace manufacture, Paiſley and that part of the country ſeems moſt likely for this branch to ſucceed, as it ought to go hand in hand with the Thread. This buſineſs, it is well known, gives bread to thouſands in the county of Buckingham, &c. in South Britain. The induſtrious poor in Scotland undoubtedly live at leſs expence, and, in general, work for leſs wages. It will not now be ſaid that they are not as ingenious as their neighbours; the contrary is abundantly manifeſt. There is no country that exceeds us in variety of patterns and neatneſs of figures, in thoſe branches already eſtabliſhed. The great demands for fancy goods from Scotland, is pretty ſure evidence that this is the caſe. Is there not, then, a great probability that the Lace branch will flouriſh in ſuch a ſoil if proſecuted with ſpirit? The advantages which will reſult from this manufacture are obvious: it will give encouragement to the manufacturing of fine Thread; it will employ a vaſt number of poor girls, who may begin at eight years of age, at which time of life they are commonly ſtrolling about until the age of twelve or fourteen, a burden to their parents, and numbers maintained by the public; in ſhort, it will

ſave

ſave a conſiderable ſum ſent annually to England and France, and may, in time, be an additional article to our exports.

It muſt be acknowledged, that many difficulties are to be ſurmounted by thoſe who introduce a new branch. The prejudices of mankind in favour of their own plans of procedure, are hard to be overcome; but at this period of improvements in agriculture, manufactures, and commerce, theſe prejudices are greatly removed, at leaſt among thoſe who are converſant in buſineſs. It muſt give pleaſure to many of my readers to hear, that the directors of the Hoſpital at Glaſgow, ſent, about two years ago, twenty-three of their poor girls to be taught the working of Lace by Mrs Puteau, a native of Liſle, now reſiding at Renfrew, who is found to be well qualified for that purpoſe. The conſequences of this ſalutary meaſure, I hope, will ſoon be felt in that place where the work is carrying on, and will be an honour to thoſe gentlemen who have ſet an example ſo worthy of imitation.

In the name of my worthy friend, let me once more addreſs the ladies of Scotland, moſt, if not all of whom, it is preſumed, are friends

to their country. It is not meant to perſuade you to lay aſide thoſe ornaments which ſet you off to the beſt advantage,—which become your ſtation, and diſtinguiſh you from the vulgar: No: But if ſuch articles as you chuſe to adorn your perſons with be manufactured in that country which affords you the means of holding ſuch rank in life, ſurely little will be neceſſary to be ſaid, to perſuade you to prefer thoſe to articles of the ſame kind imported from rival nations. Remember, by this means, you are ſupporting orphans and induſtrious poor in your own country, ſaving money to the nation, and ſetting examples to others to uſe our own manufactures. But this is not all; you will find, upon trial, the Lace made at Renfrew cheaper, and as good and as neat as any that is imported from Bruſſels, Liſle, or Antwerp.

Nothing now remains but to recommend this infantile, but important branch to the particular notice of the Honourable Board of Truſtees. You have already granted it your aid, and, it is preſumed, any farther encouragement that might be neceſſary to eſtabliſh it effectually, that may be either pointed out, or which may be ſuggeſted of yourſelves, would meet with a hearty and general concurrence.

From

From the foregoing ſtates it appears, that the trade carried on by the manufacturers in Paiſley is conſiderable and important, and that the only reaſons for its happy increaſe are, the cheapneſs of proviſions, and the low price of labour, in conjunction with the induſtry and ingenuity of the people. Every device, therefore, to raiſe the price of proviſions, ſo fatal to the landed and trading intereſts, ſhould be oppoſed with vigour and indignation; otherwiſe, the conſequences would be, a decline of buſineſs in general, an increaſe of poor's rates, burdening the rich, while poverty and deſpondency would be the lot of the poor.

I cannot cloſe this Chapter without taking particular notice of the article of coloured Threads, in the manufacturing of which the inhabitants of the town of Dundee excel all others, as well in the quality as in the quantity manufactured. The accompliſhment of this has coſt them much labour, expence, and induſtry, aſſiſted by an uncommon exertion of ingenuity; but the event has been, that the Engliſh (who formerly monopolized this branch) are outdone and ſupplanted in the trade, as well as our rival competitors the French and Dutch. At one manufactory in the town of Dundee, no leſs than twenty-

twenty-four throw or twiſt mills are employed; in another, ſixteen; in a third, eight; and in a fourth, ſeven, and ſo on: In ſhort, many thouſand people gain their bread by working at the different branches of the Thread buſineſs alone.—To give you an idea of its importance in this reſpect, I need only inform you, that, at one manufactory, 432 men, women, and boys are employed within doors, and 1400 ſpinners without; and yet the proprietors can, with difficulty, execute the ordinary commiſſions from England, with that diſpatch which is required. The town of Aberdeen, in which there are two conſiderable manufactories for coloured Threads, ſeems to be in a ſtate of emulation with that of Dundee. Indeed, the extenſive buſineſs done in this article is a ſtrong proof of the perfection to which the conductors of them have brought their goods; and the yearly increaſe of their trade ſhews, that it is beneficial to the proprietors, ſerviceable to the country, and bids fair to add to the riches and importance of the town of Aberdeen.

As the proſperity of this valuable branch is of great conſequence to the country, it is not doubted but the public will pay due attention to it, and give every neceſſary encouragement

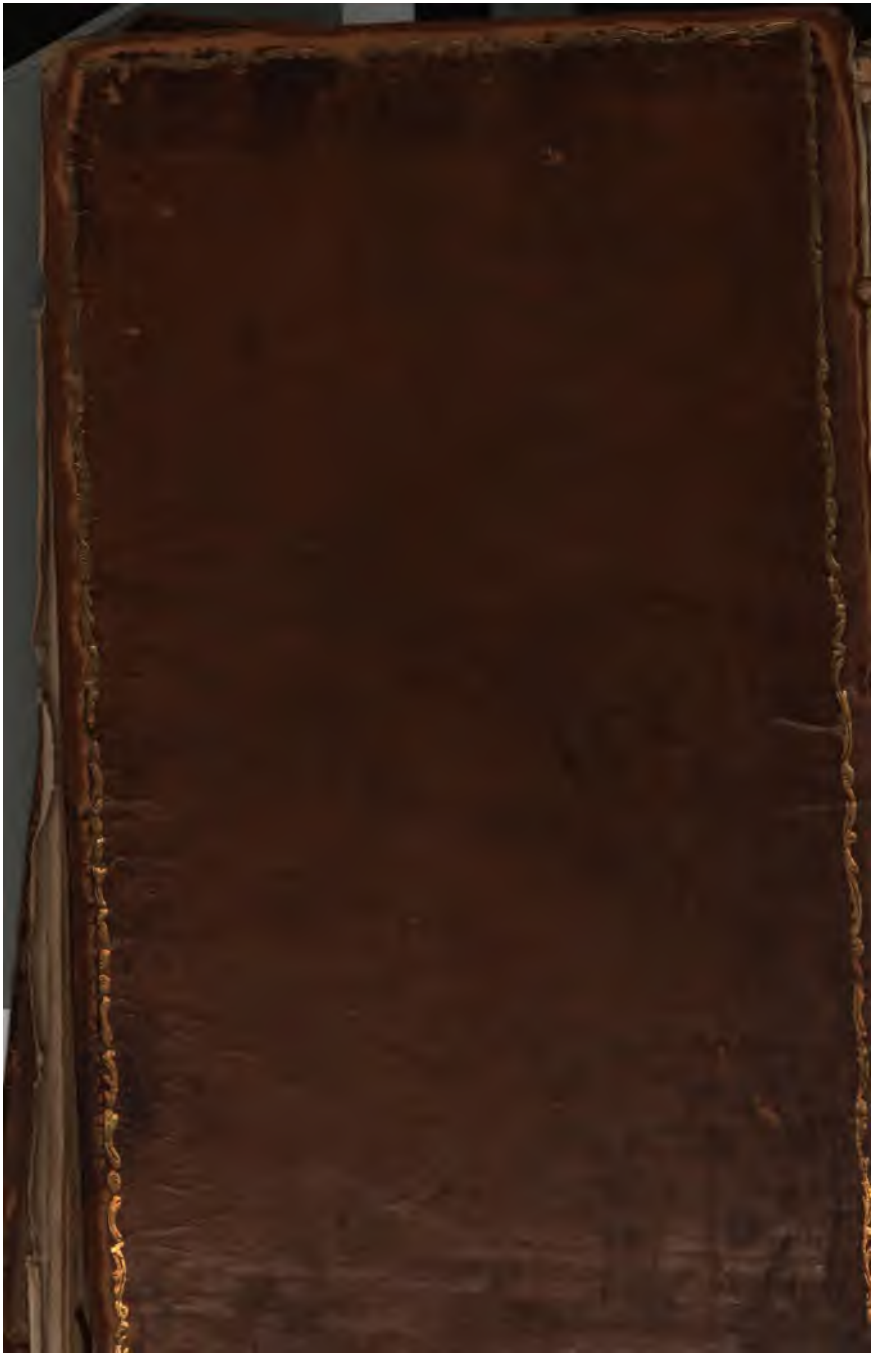
to

to inſure its future ſucceſs. I ſhall, therefore, beg leave to mention one diſadvantage it labours under at preſent, which might eaſily be removed. At the time when the law was paſſed, allowing the exciſe on ſoap made uſe of by the whiteners or bleachers of linens to be drawn back, the Thread-makers were not comprehended in that bill. Whether this omiſſion was owing to the manufacture being then in its infancy, or to whatever other cauſe, I will not pretend to ſay. But as the Thread-makers uſe the very ſame materials as the bleachers of linen, and the apparatus and labour for cleaning or clearing the Thread are alſo the ſame, they are undoubtedly intitled to a ſimilar exemption. This, I am perſuaded, would require no great effort to obtain. If application were once made to Parliament for that purpoſe, it would be ſure to meet with the hearty ſupport of all the Scots members, as well as many of the Engliſh, the requeſt being, in every reſpect, moſt juſt and reaſonable; and the expence attending it would be but trifling. Nothing is more common than to make a matter of public utility a part of the law of this country, by tacking it to a money bill, by way of *rider*. This would ſave the expence of an act of Parliament, anſwer every purpoſe that could be

be obtained from one, and would not be refuſed by our preſent Miniſtry, who are fond of giving every encouragement to the manufactures and improvements of their country.

END OF THE FIRST VOLUME.

ADVERTISEMENT.

THE Author preſents moſt reſpectful Compliments to the Nobility, Gentry, Merchants, Tradeſmen, and others, who have honoured him with their Names as Subſcribers for this Work, and begs leave to inform them, That as he is ſtill receiving Subſcriptions from every part of the three Kingdoms, he is obliged to defer publiſhing a liſt of the Subſcribers' Names to the latter end of the laſt Volume. He alſo begs leave to aſſure them, that the remainder of this Publication is in hand, and will be finiſhed with all poſſible Accuracy and Diſpatch.

St Ann's Yards,
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